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SITE ASSESSMENT REPORT FOR AREA OF CONCERN E MORAL, WELFARE AND RECREATION DEPARTMENT EQUIPMENT STORAGE AREA REVISION 1 NS MAYPORT FL
9/1/2013
TETRA TECH

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-04-D-0055

Rev. 1
September 2013

Site Assessment Report
for the
Morale, Welfare, and Recreation Department Equipment Storage Area – Area of Concern (AOC) E

Naval Station Mayport
Jacksonville, Florida

Contract Task Order 0088

September 2013

NAVFAC
Naval Facilities Engineering Command
NAVFAC SOUTHEAST
NAS Jacksonville
Jacksonville, Florida 32212-0030

TETRA TECH

Rev. 1
09/12/13

SITE ASSESSMENT REPORT
FOR THE
MORALE, WELFARE, AND RECREATION DEPARTMENT
EQUIPMENT STORAGE AREA,
AREA OF CONCERN (AOC) E

NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Naval Facilities Engineering Command Southeast
NAS Jacksonville
Jacksonville, Florida 32212-0030

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The professional opinions rendered in this document identified as the *Site Assessment Report for the Morale, Welfare, and Recreation Department Equipment Storage Area, Area of Concern (AOC) E, Naval Station Mayport, Jacksonville, Florida*, dated September 12, 2013, were developed in accordance with commonly accepted procedures consistent with applicable standards of practice. This document was prepared under the supervision of the signing engineer and is based in part on information obtained from others. If conditions are determined to exist differently than those described in this document, then the undersigned professional engineer should be notified to evaluate the effects of any additional information on the project described in this document. This document was prepared for Naval Station Mayport, Jacksonville, Florida and should not be construed to apply to any other site.

September 12, 2013
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ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
AOC	Area of Concern
AST	aboveground storage tank
bls	below land surface
CMS	Corrective Measures Study
CSR	Confirmatory Sampling Report
CTL	Cleanup Target Level
CTO	Contract Task Order
DPT	direct-push technology
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	flame ionization detector
FL-PRO	Florida Residual Petroleum Range Organics Method
GCTL	Groundwater Cleanup Target Level
LOI	Location of Interest
µg/L	microgram per Liter
MADEP	Massachusetts Department of Environmental Protection
mgd	million gallon per day
mg/kg	milligram per kilogram
NAVSTA	Naval Station
NC	no criteria
NELAC	National Environmental Laboratory Accreditation Conference
NTU	nephelometric turbidity unit
OVA	organic vapor analyzer
Partnering Team	NAVSTA Mayport Installation Restoration Partnering Team
QA/QC	quality assurance/quality control
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RMO	Risk Management Option
SAR	Site Assessment Report
SCTL	Soil Cleanup Target Level
SOP	Standard Operating Procedure
TOC	top of casing
TRPH	Total Recoverable Petroleum Hydrocarbon

ACRONYMS (CONTINUED)

USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VPH/EPH	volatile and extractable petroleum hydrocarbons

EXECUTIVE SUMMARY

This Site Assessment Report (SAR) was prepared pursuant to Operating and Corrective Action Permit Number 72442-HO-004 and summarizes the tasks that were completed pursuant to Chapter 62-780.600, Florida Administrative Code (F.A.C.) for Area of Concern (AOC) E located on the Naval Station (NAVSTA) Mayport facility in Jacksonville, Florida. AOC E contains the following six Locations of Interest (LOIs) were identified during confirmatory sampling activities in 2007:

- LOI-1 Building 349 and select additional structures
- LOI-2 Equipment shed located at the northeastern corner of AOC E
- LOI-3 Former dry storage shed area located at the southeastern side of AOC E
- LOI-4 Dry storage shed located at the center of AOC E
- LOI-5 Aboveground storage tanks (ASTs)
- LOI-6 Equipment washing area centrally located along the eastern boundary of AOC E

Based on the confirmatory sampling activities in 2007, a RCRA Facility Investigation (RFI)/Corrective Measure Study (CMS) Work Plan was written and submitted to the Navy in July 2009. The work plan detailed proposed soil and groundwater sampling activities for the RFI and subsequent CMS Reports. Subsequent agreements made during partnering activities significantly changed the technical approach to assessing this site.

During the March 2011 NAVSTA Mayport Installation Restoration Partnering Team (Partnering Team) meeting, the Partnering Team discussed the applicability of site assessment and cleanup under Chapter 62-780, F.A.C., and the preparation of a SAR and Remedial Action Plan. To this point, work was being conducted in accordance with the traditional United States Environmental Protection Agency (USEPA) Resource Conservation and Recovery Act (RCRA) corrective action and traditional United States Environmental Protection Agency (USEPA) process of conducting a RFI and CMS. According to Paragraph 7 of NAVSTA Mayport's Part V of the Operating and Corrective Action Permit (Number 72442-HO-004) issued August 17, 2009, the Permittee is required to commence site rehabilitation in accordance with Rule 62-730.225 and Chapter 62-780, F.A.C., in which "site rehabilitation" is defined as "*the assessment of site contamination and the remediation activities that reduce the levels of contaminants at a site through accepted treatment methods to meet the cleanup target levels established for that site.*" This transition from the USEPA RCRA corrective action process to processes allowed by Chapter 62-780, F.A.C. (Global Risk-based Corrective Action) was discussed at subsequent Partnering Team meetings.

During the August 2011 Partnering Team meeting, the Partnering Team reached consensus that the corrective action process would transition from the traditional USEPA process to the process under Chapter 62-780, F.A.C. At this meeting, Tetra Tech was authorized to prepare a SAR that characterizes the nature and extent of contaminants associated with the AOC E site and interprets this information to determine if remediation activities are necessary based upon the potential risk to human health and the environment.

AOC E INFORMATION

AOC E is where the Navy Morale, Welfare, and Recreation Department provides maintenance and storage of golf course maintenance equipment and supplies for such activities. Operations conducted at the site are limited to tasks similar to an engine repair or automotive service garage including the washing of golf course maintenance equipment. Equipment and supplies to service golf course maintenance equipment are stored within four buildings; however, herbicides and fertilizers used for the golf course vegetation maintenance are not stored or mixed at AOC E.

Other structures located at AOC E associated with daily operations that may impact the environment include the following:

- One mower washing area consisting of an inward sloping concrete pad and centralized drain; the drain is reportedly connected to NAVSTA Mayport storm sewer system;
- One 350-gallon fuel oil AST;
- Two 500-gallon ASTs, one contains gasoline and the other diesel;
- One large concrete pad where equipment is serviced and sometimes used for short-term storage.

Prior to the current site investigation, two environmental removal/investigation activities were performed at AOC E. On June 26, 1995, two underground storage tanks (USTs), one 1000-gallon steel gasoline UST and one 1000-gallon fiberglass UST, were removed for closure. The tank removals and closures were performed by MEI Environmental Services, Inc., and closure assessment documentation was prepared by G. B. Robbins, Inc. The removed tanks were reported to have been in good condition, and no discharge of petroleum contents was observed. The conclusion that there was no apparent discharge was verified through soil and groundwater analyses since closure sampling results were at or near instrument background readings. The removed diesel and gasoline USTs were replaced in September 2007 with the current 500-gallon gasoline and 500-gallon diesel ASTs. The new ASTs were placed at the location of the former USTs.

From May 16 through 18, 2007, Tetra Tech collected soil and groundwater samples during the confirmation sampling effort. A total of 41 soil borings were completed throughout the site to evaluate the six LOIs. Soil borings were completed to the water table at each selected location. Soil screening samples were collected from 0 to 0.5 foot below land surface (bls), 0.5 foot bls to 2 feet bls, and at 2-foot intervals thereafter with the last sample collected above the water table. The depth to water was recorded between 4 feet and 6 feet bls during this investigation. The samples were screened for total head-space organic vapors using an organic vapor analyzer equipped with a flame ionization detector. No positive responses were recorded above instrument background levels. Additional soil samples were collected from the land surface to the 0.5-foot bls interval and submitted to a fixed-base laboratory for analyses.

Six temporary piezometers were installed during the March 2007 investigation to collect groundwater grab samples from the upper saturated zone. A piezometer was installed at each LOI in areas suspected to be impacted based on field screening data or historical site operations. The soil and groundwater samples were analyzed for volatile organic compounds, RCRA Metals, polynuclear aromatic hydrocarbons, total recoverable petroleum hydrocarbons (TRPH), polychlorinated biphenyls, pesticides and herbicides.

The results from the March 2007 investigation were presented in a Confirmatory Sampling Report (CSR) (Tetra Tech, 2009a). The information in the CSR was used to refine the target analyte list and evaluate locations for the collection of additional soil and groundwater samples that were presented in the RFI/CMS Work Plan (Tetra Tech, 2009b). Further discussion of the RFI/CMS work plan occurred in January 2010, and a subsequent email was drafted and sent to the Partnering Team in February 2010 summarizing the updated work plan (see Appendix A). The RFI/CMS Work Plan and 2010 email were implemented during 2010 (Events 1 and 2).

INVESTIGATION METHODS – SUMMARY

Two separate sampling events were conducted as part of the site investigation at AOC E. The Event 1 and Event 2 field investigations were conducted March 2010 and December 2010, respectively. The Event 1 sample locations and target analyses were based on the results obtained during the March 2007 confirmatory sampling event. The Event 1 surface and subsurface soil samples were collected from the five previous soil sample locations from the CSR showing elevated concentrations of target analytes resulting in ten soil samples for laboratory analyses. The soil samples were analyzed for TRPH and TRPH speciation using the Massachusetts Department of Environmental Protection Method (MADEP) for volatile and extractable petroleum hydrocarbons. Additionally, seven groundwater monitoring wells were installed using direct-push technology (DPT) methods and developed using a peristaltic pump. Groundwater sampling was performed in the appropriate soil sample locations to evaluate groundwater

conditions. Five groundwater samples (AOCE-MW01, AOCE-MW02, AOCE-MW04, AOCE-MW05, AOCE-MW06) were analyzed for TRPH, and two groundwater samples (AOCE-MW03 and AOCE-MW07) were analyzed for arsenic.

One monitoring well (AOCE-MW08) was installed during Event 2. The location of this monitoring well was chosen to help define the lateral extent of arsenic groundwater contamination based upon the results from the March 2007 and March 2010 sampling events (confirmatory sampling event and Event 2, respectively).

INVESTIGATION RESULTS – SUMMARY

The water table at AOC E was encountered at approximately 4 to 6 feet bls during the Tetra Tech investigations. The direction of groundwater flow in the surficial aquifer was generally to the east-northeast toward the Mayport Turning Basin, which is less than 600 feet northeast of AOC E. The horizontal hydraulic gradient was determined to be 1.56×10^{-4} feet per foot. This horizontal gradient partially reflects the general topographic features of the site, which are flat and without any defining ridges or coastal dunes. The groundwater seepage velocity across the site was calculated at 0.0023 foot per day or 0.8251 foot per year.

Five soils samples from the CSR contained TRPH concentrations exceeding Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Levels (SCTLs), and one soil sample contained a chromium concentration exceeding the SCTL for leachability to groundwater. Soil samples collected during Event 1 for TRPH speciation showed no TRPH fraction concentrations exceeding the associated SCTLs. Arsenic was the only analyte detected in groundwater samples collected during the three sampling events at a concentration exceeding the FDEP Groundwater Cleanup Target Levels (GCTLs). Arsenic-impacted groundwater was defined in the southeastern portion of AOC E over an area of approximately 0.04 acre. It is suspected that the difference in the methods used to install the groundwater sampling points influenced the detected arsenic concentration in the groundwater. During the CSR, groundwater samples were collected from temporary piezometers that were installed in boreholes that were advanced using a stainless steel hand auger. During Events 1 and 2, groundwater samples were collected from groundwater monitoring wells that were installed using DPT methods.

The potential risk to human receptors under current land use was evaluated using the SCTLs and GCTLs referenced in Chapter 62-777, F.A.C. The SCTLs are default cleanup criteria that are used to determine the appropriate Cleanup Target Levels (CTLs) for a contaminated site. Chapter 62-780, F.A.C., allows for the development of alternative GCTLs and SCTLs. Based upon the results presented this SAR and the understanding of the current and anticipated land use at AOC E, it was determined that alternative

CTLs would not need to be developed and the default CTLs listed in Chapter 62-777, F.A.C., were appropriate for use in determining if remediation activities may be necessary.

Under the current land use patterns, the human receptors will be adult maintenance workers and utility workers. The maintenance workers are managing golf course equipment and golf course supplies at AOC E. These maintenance workers would have limited contact with surface soils and no contact with groundwater. Potable water from the NAVSTA drinking water treatment facility is used for drinking and to wash down the equipment at LOI-6. There are no shallow water irrigation wells in AOC E. The utility workers who install and repair subsurface utility features (e.g., plumbing, electrical, storm water conveyance piping) would be exposed to soils for a limited duration and potentially exposed to groundwater for a limited duration. The duration of exposure to surface and subsurface soils would most likely range from 2 to 4 weeks and take place for no longer than 8 hours per day for 5 days per week. The exposure to groundwater, if such were to occur, would be limited in duration and the surface area of skin, exposed to groundwater, would be hands, and legs from the bottom of the feet to below the knee.

There is limited opportunity for maintenance workers or utility workers to come into direct contact with contaminated groundwater. The frequency and duration of such contact is so low that a quantitative evaluation of risk is unwarranted. In addition, the groundwater water from the surficial aquifer in the area of AOC E is not used for drinking water, wash water, or lawn irrigation. Therefore, as long as groundwater water from the surficial aquifer is not used for consumption, wash water, or landscape irrigation, there is no opportunity for exposure. Based upon this qualitative risk evaluation, there is no unacceptable risk to human health due to the presence of arsenic in groundwater. A quantitative evaluation of risk would be required should conditions change; such as, shallow groundwater withdrawal well(s) installed in AOC E or immediately downgradient from AOC E and water from these well(s) used in a way that allowed humans to contact the water for extended periods of time.

CONCLUSIONS AND RECOMMENDATIONS

The AOC E site assessment findings of hydrogeology and nature and extent of contamination support the conclusion that the soils are not contaminated. There is a small area (approximately 0.05 acre) of groundwater impacted by arsenic at concentrations exceeding the FDEP GCTLs.

Tetra Tech recommends beginning a groundwater monitoring program for AOC E. The monitoring program should focus on ensuring the plume is defined and the concentrations are not increasing. Once the monitoring program has shown the groundwater plume is stable or shrinking the site should be considered for closure under RMO II.

1.0 INTRODUCTION

Tetra Tech, Inc. is under contract to the United States Navy, Naval Facilities Engineering Command, Southeast to develop a Site Assessment Report (SAR) for Area of Concern (AOC) E located at Naval Station (NAVSTA) Mayport, Jacksonville, Florida. This SAR was prepared pursuant to Operating and Corrective Action Permit Number 72442-HO-004 and under the Comprehensive Long-term Environmental Action Navy IV Contract Number N62467-04-D-0055, Contract Task Order (CTO) 0088.

1.1 PURPOSE SITE ASSESSMENT

The purpose of this Site Assessment is to characterize the nature and extent of contaminants associated with the AOC E site and interpret this information to determine if remediation activities are necessary based upon the potential risk to human health and the environment.

Previously, the investigation of RCRA sites was being conducted in accordance with the traditional USEPA Resource Conservation and Recovery Act (RCRA) corrective action process of conducting a RCRA Facility Investigation (RFI) and preparing a Corrective Measures Study (CMS). According to Paragraph 7 of Part V of the NAVSTA Mayport's Operating and Corrective Action Permit (Number 72442-HO-004) issued August 17, 2009, the Permittee (Navy) is required to commence site rehabilitation in accordance with Rule 62-730.225 and Chapter 62-780, F.A.C., in which "site rehabilitation" is defined as "*the assessment of site contamination and the remediation activities that reduce the levels of contaminants at a site through accepted treatment methods to meet the cleanup target levels established for that site.*" This transition from the RCRA corrective action process to processes allowed by Chapter 62-780, F.A.C. (Global Risk-based Corrective Action) was discussed at subsequent Partnering Team meetings. During the March 2011 NAVSTA Mayport Installation Restoration Partnering Team (Partnering Team) meeting, the Partnering Team discussed the applicability of site assessment and cleanup under Chapter 62-780, Florida Administrative Code (F.A.C.), and the preparation of a SAR and Remedial Action Plan (RAP) for RCRA sites. During the August 2011 Partnering Team meeting, the Partnering Team reached consensus that the corrective action process would transition from the traditional USEPA process to the process under Chapter 62-780, F.A.C. At this meeting, Tetra Tech was authorized to prepare a SAR.

1.2 HISTORICAL INFORMATION

1.2.1 Facility Background

NAVSTA Mayport is located within the corporate limits of the City of Jacksonville, Duval County, Florida, approximately 12 miles to the east northeast of downtown Jacksonville, and adjacent to the town of

Mayport. The Station complex is located on the northern end of a peninsula bounded by the Atlantic Ocean to the east and the St. Johns River to the north and west. NAVSTA Mayport occupies the entire northern part of the peninsula except for the town of Mayport, which is located to the west between the Station and the St. Johns River. A map of the area is provided as Figure 1-1.

1.2.2 Site Background

AOC E is comprised of the Navy Morale, Welfare, and Recreation Department provides maintenance and storage for golf course maintenance equipment and supplies for such activities. The site has a 6-foot stockade style wooden fence surrounding the property, with an opening located at the southwestern corner of the site. A circular, limestone gravel road provides access to the various buildings and structures with Building 349 located in the center (see Figure 1-2).

Operations conducted at the site are limited to tasks similar to an engine repair or automotive service garage including the washing of golf course maintenance equipment. Equipment and supplies to service golf course maintenance equipment are stored within four buildings. Herbicides and fertilizers used for the golf course vegetation maintenance are not stored or mixed at AOC E. The four buildings include the following:

- Building 349, the largest and most utilized building where equipment is repaired and stored.
- An unnamed three-sided equipment storage building used to store small tractors.
- Building 349B, a dry storage shed where items such as tires, bolts, and rope are stored.
- An unnamed waste storage building where waste generated during daily operations is stored.

Other structures located at AOC E associated with daily operations that may impact the environment include the following:

- One mower washing area consisting of an inward sloping concrete pad and centralized drain reportedly connected to the NAVSTA Mayport storm sewer system.
- One 350-gallon fuel oil AST.
- Two 500-gallon ASTs, one contains gasoline and the other diesel.
- One large concrete pad where equipment is serviced and sometimes used for short-term storage.

The potential for environmental impact from operations conducted at the buildings and structures is discussed in greater detail in Section 1.3.3.

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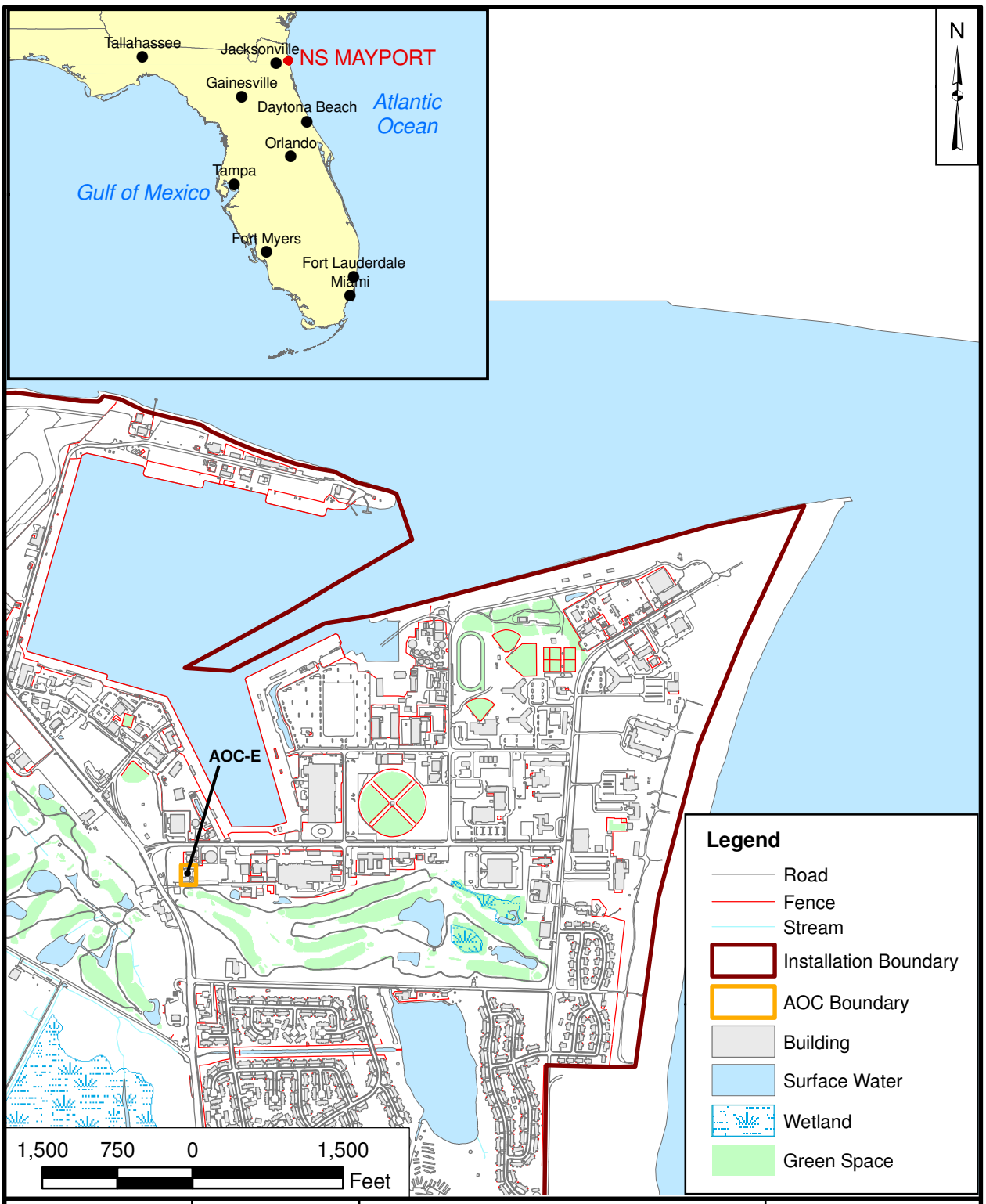

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CHECKED BY B. PEEBLES	DATE 10/04/11		APPROVED BY ___ DATE ___
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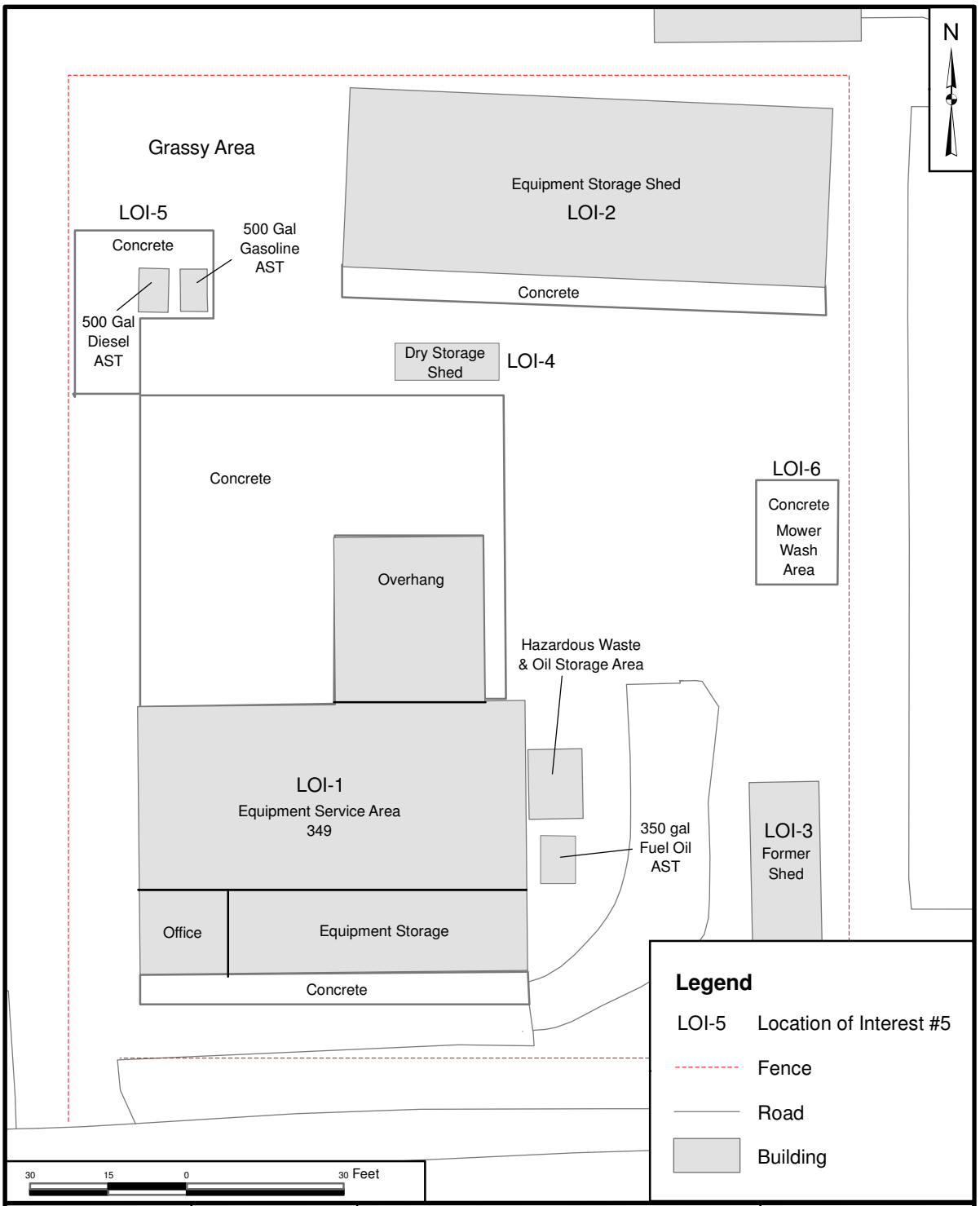

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1.2.3 Locations of Interest

During the confirmatory sampling effort, LOIs were determined based on site observations, interviews with operational personnel, and the possibility of site operations that may impact soil and groundwater at AOC E. AOC E is located at NAVSTA Mayport in Jacksonville, Florida (see Figure 1-1). The following six Locations of Interest (LOIs) (see Figure 1-2) were identified in the Confirmatory Sampling Report (CSR) (Tetra Tech, 2009a). Based on field observations and work operations conducted at AOC E, six LOIs on which to focus site investigations efforts were defined (Tetra Tech, 2007) as listed below:

- LOI-1 Building 349 and select additional structures
- LOI-2 Equipment shed located at the northeastern corner of AOC E
- LOI-3 Former dry storage shed area located at the southeastern side of AOC E
- LOI-4 Dry storage shed located at the center of AOC E
- LOI-5 ASTs
- LOI-6 Equipment washing area centrally located along the eastern boundary of AOC E

1.2.3.1 LOI-1: Equipment Service and Storage Area/Building 349

Building 349 is located near the center of the site and is where site operations such as repair, service, and storage of golf course maintenance equipment are conducted. The building is divided into two halves; equipment is repaired and maintained in the northern half, and the gasoline powered lawn tractors are stored in the southern half. Both halves of Building 349 are constructed with concrete block walls and a concrete floor. No floor drains were observed. Building 349 is also the only building on the site with potable water and a connection to the sanitary sewer.

Access to the northern half of Building 349 is facilitated by four bay doors. Within these bays are hand tools and automated tools typical of an engine repair shop. In addition to tools, a small quantity of cleaners, degreasers, lubricants, and solvents are stored in the bay areas for use to perform daily activities. Extending north from the bay door areas is a 20-foot by 20-foot concrete pad that slopes away from the building towards the north-northeast. A hose attached to a water spigot is located in the northwestern corner of the building and provides water used to rinse equipment and the concrete pad.

A concrete pad, where motorized equipment is repaired or stored awaiting repair is located on the northern end of Building 349. Two areas of surficial stains approximately 1 foot in diameter were observed on the concrete near the center of this concrete pad. An electric lift typical of an automotive repair shop was located in the northeastern corner of the concrete pad. The lift was not operated using hydraulic fluid; however, surficial oil stains on concrete measuring 2 feet in diameter were observed in the area of the lift. Water sprayed onto the concrete pad drains to the north and northeast ended on

unpaved, compacted lime rock. The ground surface in this area did not appear to be stained, and no stressed vegetation was observed; however, the soils surrounding the entire concrete pad were recognized as potential collection points to evaluate potential impacts to soil and groundwater. Therefore, Building 349 (LOI-1) was considered a potential source LOI and was included in the confirmatory sampling investigation.

The southern half of Building 349 is an open-ended building allowing easy access of equipment such as riding lawn mowers and carts. No maintenance or washing was observed or reported to be conducted in this area. No stained soil or stressed vegetation was observed surrounding the southern portion of the building. The soil surrounding the southern half of the building was also recognized as a potential source LOI due to the storage of gasoline-powered equipment.

A building where used hazardous waste and oil are temporarily stored while awaiting disposal is located along the eastern wall and near the northeastern corner of Building 349. This storage building is equipped with a solid concrete floor and secondary containment structure that includes a discharge pipe fitted into the containment wall. No stained soil or stressed vegetation was observed surrounding the discharge end of the secondary drain pipe or surrounding the used petroleum waste storage building. Although no physical signs of impact are present, the soil at the secondary drain pipe discharge end is recognized as a potential source of contamination.

Also within LOI-1 is a 350-gallon steel AST containing fuel oil located along the eastern wall of Building 349. The AST is equipped with a concrete spill containment basin. The spill containment basin appeared to be in good condition and is fitted with a discharge pipe. No stressed vegetation or stained soil was observed surrounding the secondary containment basin.

1.2.3.2 LOI-2: Equipment Storage Shed

The Equipment Storage Shed is a concrete block building used to store tractors, pulled mowers, and riding mowers and is located on the northeastern corner of the property boundary. The building is a three sided barn-like structure with a high roof line, open front construction, and a cement floor. No significant stains were observed; however, a few locations where minimal staining from oil drips were observed on the concrete floor. Petroleum-fueled equipment is stored in the building so the potential for a release is present.

1.2.3.3 LOI-3: Former Dry Storage Shed

During a site visit, a dry storage shed was located in the southeastern corner of the property boundary. The building was a wooden frame construction with metal outer material. The wooden floors in the southern end had rotted, leaving a 2-foot by 2-foot hole. Small push mowers and some supplies were

stored in the building. A petroleum odor was also noted in the building during the visit. During the elapse of several weeks between the site visit and soil and groundwater collection time, the shed was removed. Petroleum-fueled equipment was stored in the building so the potential for a release was present.

1.2.3.4 LOI-4: Dry Storage Shed

A current dry storage shed is located in the center of the property, directly north of the northeastern corner of the cement pad adjacent to Building 349. The dry storage shed is apparently used to store rope, parts, fasteners, and non-liquid items.

1.2.3.5 LOI-5: Petroleum Storage Tank Area

One 500-gallon gasoline AST and one 500-gallon diesel AST, both used for filling equipment and vehicles, are located in the northwestern corner of the site. Both tanks have secondary containment and sit side by side. Both tanks are plumbed with electric dispensers fitted on the tanks. Equipment and vehicles needing fuel pull up near the tanks where the ground surface is unpaved. Three areas of stained soil, measuring 3-inches in diameter, were observed from petroleum spilled during the fueling process.

In addition to the two 500-gallon ASTs, the unpaved area north of the tanks extending to the fence and equipment building identified in LOI-2 and were added to the area of investigation. It was reported that motorized equipment was once parked in the grassy area north of the two ASTs.

1.2.3.6 LOI-6: Equipment Wash Area

The wash area located along the eastern boundary of the site consists of a 20-foot by 20-foot cement pad that is sloped to drain water towards a central point. This area is used to wash the lawn mowers and tractors where wash water is collected for disposal into the sanitary sewer. An area 2 to 3 inches wide and approximately 4 feet long of cut decomposing grass clippings was observed along the edge of the drain between the fence and the concrete pad. No stained soil or stressed vegetation was observed in this area. Soil quality data was obtained for mower washing area during the confirmatory sampling event by collecting soil samples SS04 and SS09 for laboratory analyses.

1.3 PREVIOUS SITE INVESTIGATIONS

Prior to the current site investigation, two environmental investigations were performed at AOC E. On June 26, 1995, two underground storage tanks (USTs), one 1000-gallon steel gasoline UST and one 1000-gallon fiberglass UST, were removed for closure. The tank removals and closures were performed by MEI Environmental Services, Inc., and closure assessment documentation was prepared by

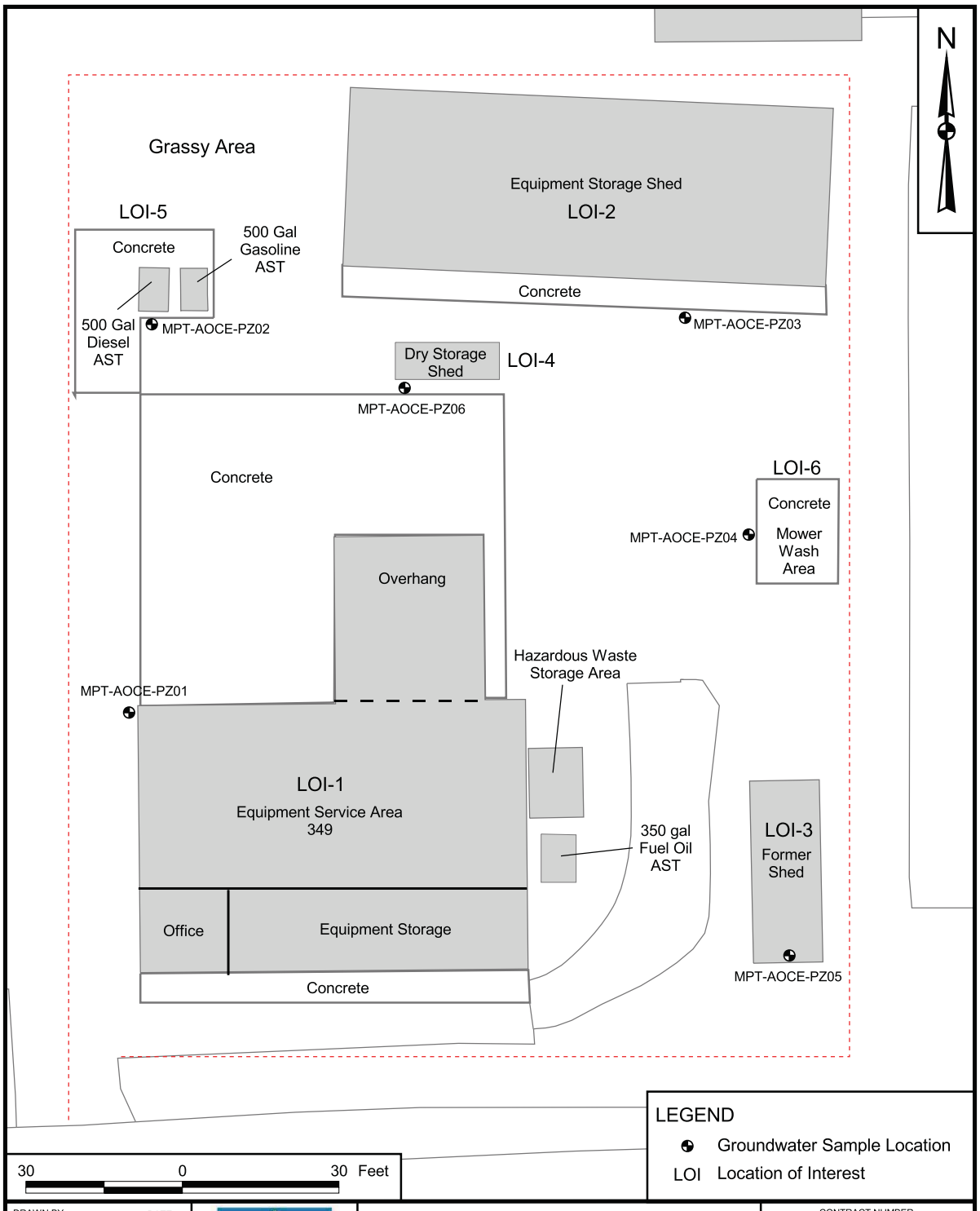
G. B. Robbins, Inc. The removed tanks were reported to have been in good condition, and no discharge of petroleum contents was observed. The conclusion that there was no apparent discharge was reportedly verified through soil and groundwater analyses since closure sampling results were at or near instrument background readings. Tetra Tech does not have any report associated with these activities. The removed diesel and gasoline USTs were replaced in September 2007 with the current 500-gallon gasoline and 500-gallon diesel ASTs. The new ASTs were placed at the location of the former USTs.

During Tetra Tech's confirmatory sampling efforts on May 16 through 18, 2007, soil and groundwater samples were collected at AOC E for screening purposes. A total of 41 soil borings were completed throughout the site to evaluate the six LOIs. Soil borings were completed to the water table at each selected location. Soil screening samples were collected from 0 to 0.5 foot bls, 0.5 foot bls to 2 feet bls, and at 2-foot intervals thereafter with the last sample collected 2 feet above the water table. The depth to water was recorded between 4 feet and 6 feet bls during this investigation. The samples were screened for total head-space organic vapors using an organic vapor analyzer (OVA) equipped with a flame ionization detector (FID). No positive responses exceeding instrument background level were recorded.

Additional soil samples were collected from the land surface to the 0.5-foot bls interval and submitted to a fixed-base laboratory for analyses. Six temporary piezometers were installed during the March 2007 investigation to collect groundwater grab samples from the upper saturated zone. A piezometer was installed at each LOI in areas suspected to be impacted based on field screening data or historical site operations (see Figure 1-3). The soil and groundwater samples were analyzed for volatile organic compounds, RCRA metals, polynuclear aromatic hydrocarbons, TRPH, polychlorinated biphenyls, pesticides and herbicides.

Soil sample locations were selected based on site operations and field observations since the OVA data recorded during soil screening activities was inconclusive, only surface soil samples were collected. Twelve surface soil samples collected in May 2007 from land surface to 0.5 foot bls from the following locations:

- LOI-1 One soil sample collected near the spigot on the northwestern corner of Building 349 (MPT-AOCE-SS01)
- LOI-1 One soil sample collected from the current heating oil AST area (MPT-AOCE-SS11)
- LOI-1 One soil sample collected just beyond the paved area in the northeastern corner of the cement pad near the vehicle lift (MPT-AOCE-SS08)



DRAWN BY S. STROZ	DATE 5/21/07	PIEZOMETER SAMPLE LOCATION MAP - MARCH 2007 AREA OF CONCERN E SITE ASSESSMENT REPORT NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	CONTRACT NUMBER CTO-0078
CHECKED BY J. JOHNSON	DATE 11/19/08		APPROVED BY — DATE —
COST/SCHEDULE-AREA			APPROVED BY — DATE —
SCALE AS NOTED			DRAWING NO. FIGURE 1-3 REV 0

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- LOI-1 One soil sample collected from the soil adjacent to the hazardous waste storage area (MPT-AOCE-SS10)
- LOI-1 One soil sample collected from near the southeastern corner of the equipment storage shed where water drains along the concrete pad of the building (MPT-AOCE-SS12)
- LOI-2 One soil sample collected from the unpaved soil in the vicinity of the equipment storage on the southeastern corner of the site (MPT-AOCE-SS03)
- LOI-3 One soil sample collected from the former dry storage shed on the southern end the former shed in the location of the hole in the floor (MPT-AOCE-SS05)
- LOI-4 One soil sample just beyond the edge of the concrete where water drains from the large concrete pad located near the center of the site. Also, the sample is at the corner of the dry storage shed near the entrance (MPT-AOCE-SS06)
- LOI-5 One soil sample collected south of the current ASTs (MPT-AOCE-SS02)
- LOI-5 One soil sample collected within the area of the former vehicle storage (MPT-AOCE-SS07)
- LOI-6 Two soil samples collected from the unpaved soil adjacent to the wash area (MPT-AOCE-SS04 and MPT-AOCE-SS09)

The results from the March 2007 investigation were presented in a CSR (Tetra Tech, 2009a). The information in the CSR was used to refine the target analyte list and evaluate locations for the collection of additional soil and groundwater samples which were presented in the RFI/CMS Work Plan (Tetra Tech, 2009b) implemented during 2010 (Events 1 and 2).

Five soils samples from the confirmatory sampling event in 2007 contained TRPH concentrations exceeding FDEP Soil Cleanup Target Levels (SCTLs), and one soil sample (SS08-0.5) showed an exceedance of the SCTL for leachability to groundwater for chromium. The groundwater investigation showed the only exceedances detected in groundwater were for arsenic at PZ04 and PZ05. Chromium was detected at levels well below the Groundwater Cleanup Target Level (GCTL) in all of the groundwater samples collected during confirmatory sampling events. Therefore, the leachability exceedance of chromium detected in surface soil at MPT-AOCE-SS08 was not further addressed in subsequent sampling events.

1.4 AOC E SITE INVESTIGATION SCOPE SUMMARY

Two separate sampling events were conducted as part of this site investigation at AOC E. The Event 1 and Event 2 field investigations were conducted March 2010 and December 2010, respectively. The Event 1 sample locations and target analyses were based upon the results obtained during the March 2007 confirmatory sampling event (Tetra Tech, 2009a). Event 1 was conducted on March 1 and March 8, 2010, somewhat in accordance with the RFI/CMS Work Plan (Tetra Tech, 2009b). In January 2010, the RFI/CMS Work Plan was modified to include additional samples for speciation of the total recoverable petroleum hydrocarbon (TRPH) fractions in lieu of defining the extent of the TRPH by FL-PRO. The Event 1 surface and subsurface soil samples were collected from the five previous soil sample locations that showed elevated concentrations of TRPH, resulting in ten soil samples submitted for laboratory analyses. The soil samples were analyzed for TRPH and TRPH speciation using the Massachusetts Department of Environmental Protection (MADEP) Method for volatile and extractable petroleum hydrocarbons (VPH/EPH). Additionally, seven groundwater monitoring wells were installed using direct-push technology (DPT) methods and developed using a peristaltic pump. The monitoring wells were installed at select appropriate soil sampling locations to evaluate the vertical and horizontal extent of potential contamination. Five groundwater samples were analyzed for TRPH and two groundwater samples were analyzed for arsenic.

One additional monitoring well was installed during Event 2. The location of this monitoring well was chosen to define the lateral extent of arsenic groundwater contamination based upon the results from the CSR (March 2007) and Event 1 (March 2010) sampling events. In addition to collecting field samples, quality assurance/quality control (QA/QC) samples and investigation-derived waste samples were also collected. The details associated with advancing the soil borings, installing the monitoring wells, and soil and groundwater sampling are provided in Section 2.0.

During the March 2011 Partnering Team meeting, the Partnering Team discussed the applicability of site assessment and cleanup under Chapter 62-780, F.A.C., and the preparation of a SAR and RAP. During the August 2011 Partnering Team meeting, the Partnering Team reached consensus that the corrective action process would transition from the traditional USEPA process to the process under Chapter 62-780, F.A.C. At this meeting, Tetra Tech was authorized to prepare a SAR in lieu of an RFI.

1.5 POTABLE WATER WELL SURVEY

The potable water supply information presented in this report was obtained from a Contamination Assessment Report prepared by the United States Army Corps of Engineers (USACE) for a nearby site (Site 1330) in 1992 (USACE, 1992). Personnel at the water treatment plant confirmed the accuracy of the water well information. Potable well information is summarized on Table 1-1.

Potable water is supplied to NAVSTA Mayport by three on-Station supply wells that are all located within ½ mile of AOC E as depicted on Figure 1-4. One of the three wells is 12 inches in diameter, and the other two are 16-inch diameter wells. All three wells draw water from the Floridan aquifer from depths of approximately 1,000 feet below land surface (bls). Well capacities range between 2.1 and 2.9 million gallons per day (mgd) with a combined total pumping capacity of 10.0 mgd. The water is treated by the Station's water treatment plant prior to distribution.

TABLE 1-1

POTABLE WATER WELL SURVEY RESULTS
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA

Well Identification	Approximate Distance from Site (miles)	Diameter (inches)	Depth of Well (feet bls)	Status
1	<0.5	12	1,000	In use
2	<0.5	16	1,000	In use
3	<0.5	16	1,000	In use

1.6 REPORT ORGANIZATION

This report is divided into four sections. Section 1.0, Introduction, provides historical information about NAVSTA Mayport and AOC E. Section 2.0, Subsurface Investigation Methods, summarizes the subject field investigation and presents an updated evaluation of the site geology and hydrogeology. Section 3.0, Investigation Results, presents the results of the field investigations. Section 4.0, AOC E Conclusions and Recommendations, summarizes the preceding sections of the document and offers recommendations regarding future actions for AOC E. Specifically, options regarding appropriate remediation methods are discussed as they relate to the potential risks to human health and the environment.

2.0 SUBSURFACE INVESTIGATION METHODS

This section comprehensively documents the Events 1 and 2 field work performed at AOC E. The Events 1 and 2 field investigations were conducted in March 2010 and December 2010, respectively.

2.1 FIELD INVESTIGATIONS

The overall sampling and analytical analyses associated with Event 1 and 2 are summarized in Table 2-1. The Event 1 soil and groundwater sampling locations are shown on Figures 2-1 and 2-2, respectively. The Event 2 groundwater monitoring well sample location is shown on Figure 2-3.

2.1.1 Event 1: March 1, 2010, and March 8, 2010

Both soil and groundwater samples were collected during Event 1. The work was conducted in general accordance with the RFI/CMS Work Plan (Tetra Tech, 2009a), with major deviations. The MADEP sampling strategy was discussed and approved during 2010 Partnering Team meetings. The specific deviations are as follows:

- The 2009 RFI/CMS Work Plan indicated 25 surface soil samples would be collected to define TRPH extent via the FL-PRO method. TRPH exceeded its SCTL in five locations during the confirmatory sampling. Per the January 2010 Partnering Team meeting minutes and the subsequent email sent to the Partnering Team in February 2010, it was recommended to resample surface soil at the five locations and analyze for speciated TRPH using the MADEP Method (see Appendix A).

- In addition, the soil borings would be advanced until the water table was encountered. A FID was used to analyze soil samples at 2-foot intervals to the water table, and a sample was collected at the highest FID reading. If there were no FID detections, a sample would be taken at the least saturated soil sampled closest to the water table. These subsurface soils were to be analyzed using Florida Residual Petroleum Organic Method (FL-PRO) and the MADEP Method.

- Monitoring wells would be installed in each location, and the groundwater would be analyzed for TRPH using FL-PRO.

- Two additional monitoring wells were to be installed where arsenic was previously detected in groundwater during the confirmatory sampling. Piezometers were to be installed to better understand the regional groundwater flow.

TABLE 2-1

SAMPLE IDENTIFICATION
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA

Sample Location	Sample Identification	Sample Date	Sample Depth (feet bls)	RCRA Metals	TRPH	VPH/EPH
SOIL						
MPT-AOCE-SB001	MPT-AOCE-SB001-04-030110	3/1/2010	2 - 4		✔	✔
MPT-AOCE-SB002	MPT-AOCE-SB002-04-030110	3/1/2010	2 - 4		✔	✔
MPT-AOCE-SB006	MPT-AOCE-SB006-04-030110	3/1/2010	2 - 4		✔	✔
MPT-AOCE-SB008	MPT-AOCE-SB008-04-030110	3/1/2010	2 - 4		✔	✔
MPT-AOCE-SB010	MPT-AOCE-SB010-04-030110	3/1/2010	2 - 4		✔	✔
MPT-AOCE-SS001	MPT-AOCE-SS001-0.5-030110	3/1/2010	0 - 0.5		✔	✔
MPT-AOCE-SS002	MPT-AOCE-SS002-0.5-030110	3/1/2010	0 - 0.5		✔	✔
MPT-AOCE-SS006	MPT-AOCE-SS006-0.5-030110	3/1/2010	0 - 0.5		✔	✔
MPT-AOCE-SS008	MPT-AOCE-SS008-0.5-030110	3/1/2010	0 - 0.5		✔	✔
MPT-AOCE-SS010	MPT-AOCE-SS010-0.5-030110	3/1/2010	0 - 0.5		✔	✔
GROUNDWATER						
Sample Location	**Sample Identification**	**Sample Date**	**Screen Interval (feet bls)**	**RCRA Metals**	**TRPH**	**VPH/EPH**
AOCE-MW01	MPT-AOCE-GW-MW01-030810	3/8/2010	3.2 - 13.2		✔	
AOCE-MW02	MPT-AOCE-GW-MW02-030810	3/8/2010	3.6 - 13.6		✔	
AOCE-MW03	MPT-AOCE-GW-MW03-030810	3/8/2010	3.8 - 13.8	arsenic		
AOCE-MW04	MPT-AOCE-GW-MW04-030810	3/8/2010	3.4 - 13.4		✔	
AOCE-MW05	MPT-AOCE-GW-MW05-030810	3/8/2010	4.1 - 14.1		✔	
AOCE-MW06	MPT-AOCE-GW-MW06-030810	3/8/2010	3.9 - 13.9		✔	
AOCE-MW07	MPT-AOCE-GW-MW07-030810	3/8/2010	3.9 - 13.9	arsenic		
AOCE-MW08	MPT-AOC-E-MW08S-20101206	12/6/2010	4.8 - 14.8	arsenic		

Notes:
✔ sample was analyzed for the target analyte group

An empty cell means the sample was not analyzed for the target analyte group
VPH/EPH = Volatiles by GC by Method MADEP VPH and Extractables by GC by Method MADEP EPH (FDEP, 2005)

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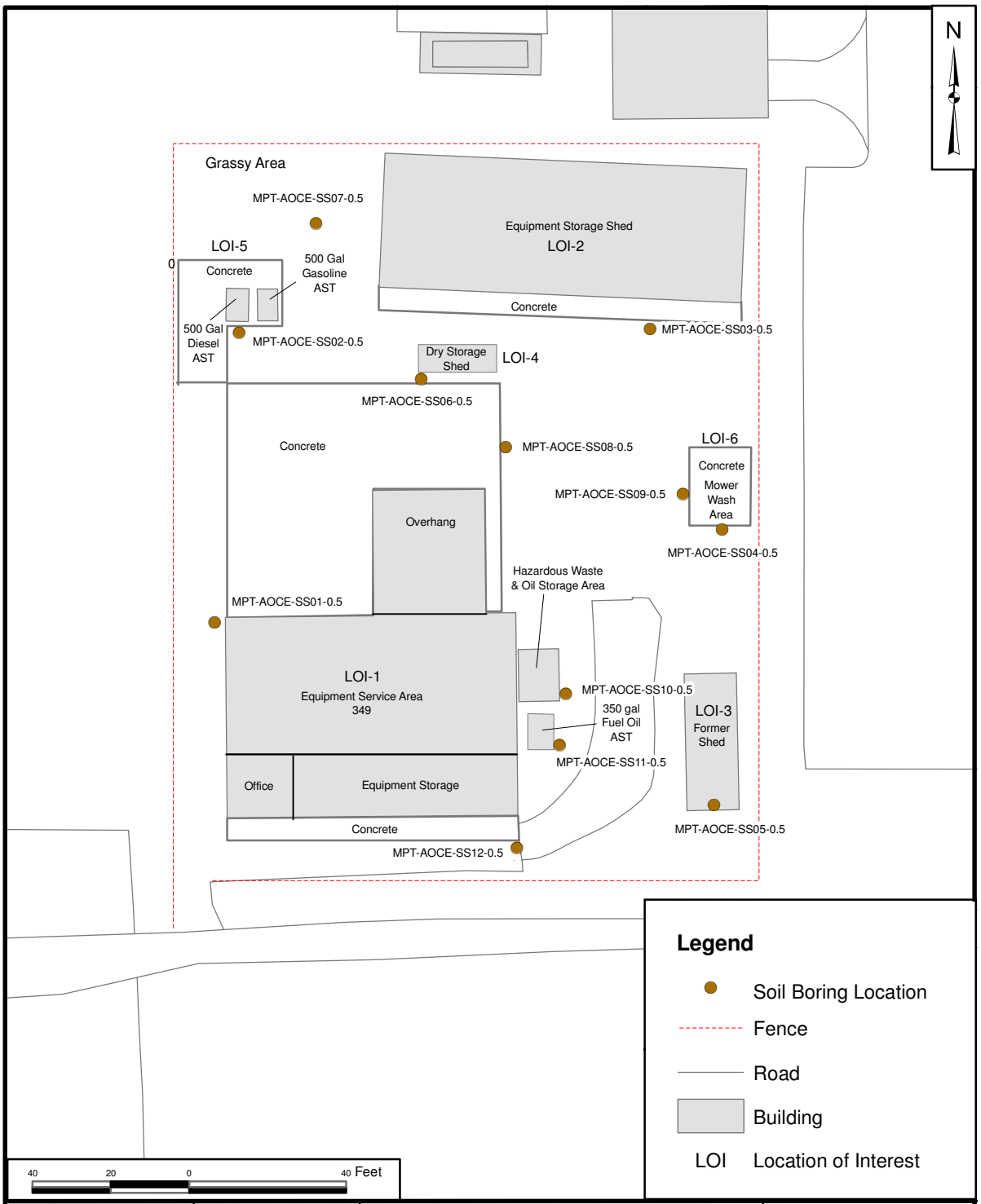

DRAWN BY S. STROZ	DATE 2/04/11	SOIL SAMPLE LOCATION MAP SITE ASSESSMENT REPORT AOC - E NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	CONTRACT NUMBER NG2467-04-0-0055
CHECKED BY R. MCCANN	DATE 11/02/11		APPROVED BY — DATE —
COST/SCHEDULE-AREA			APPROVED BY — DATE —
SCALE AS NOTED			DRAWING NO. FIGURE 2-1 REV 0

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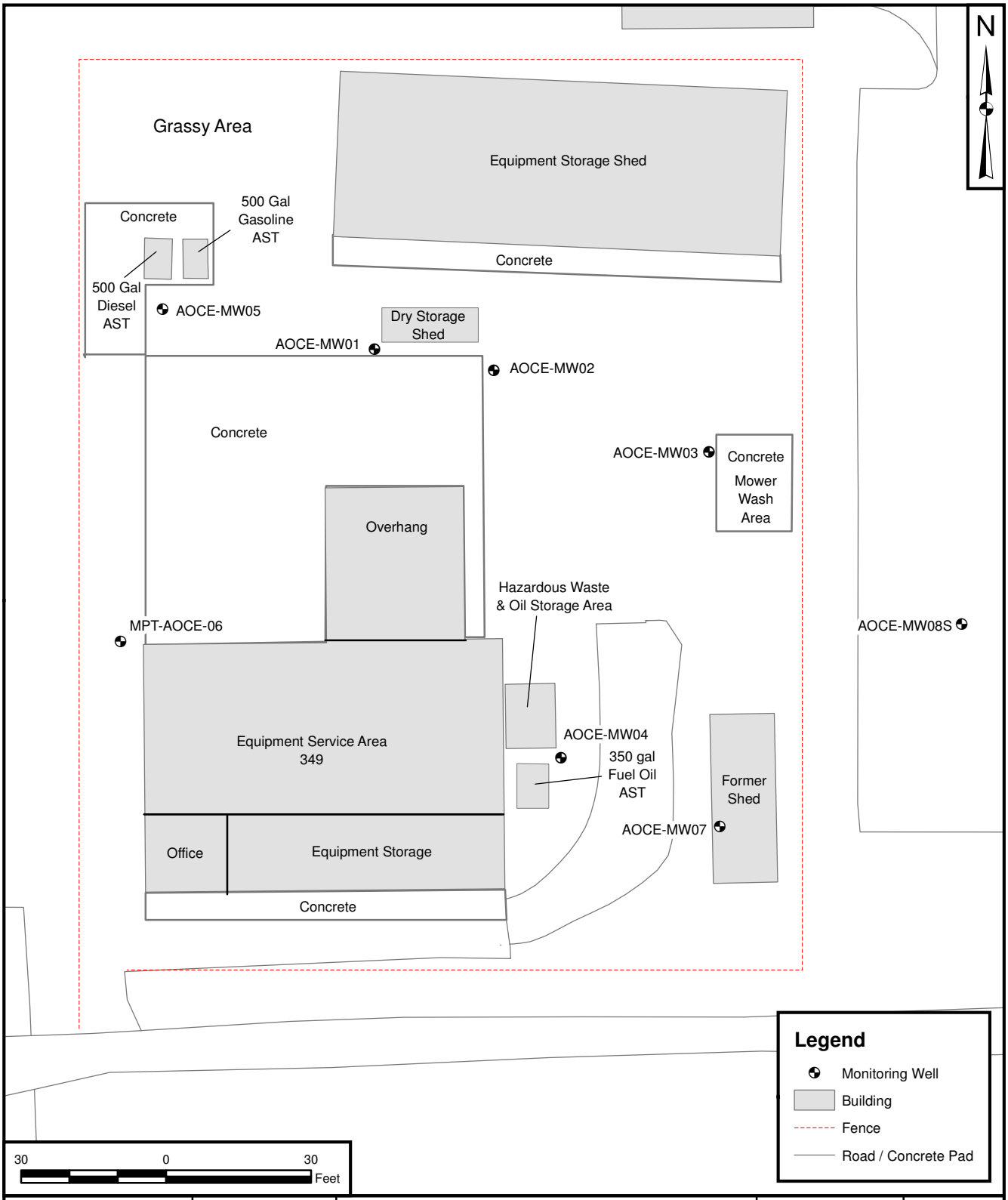

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J. ENGLISH	12/23/11	NAVFAC	MONITORING WELL LOCATION MAP SITE ASSESSMENT REPORT AOC E NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	0871	088
CHECKED BY	DATE			APPROVED BY	DATE
K. WIMBLE	12/23/11			___	___
REVISED BY	DATE			APPROVED BY	DATE
S. PAXTON	01/09/12			___	___
SCALE AS NOTED				FIGURE NO. FIGURE 2-2	REV 0

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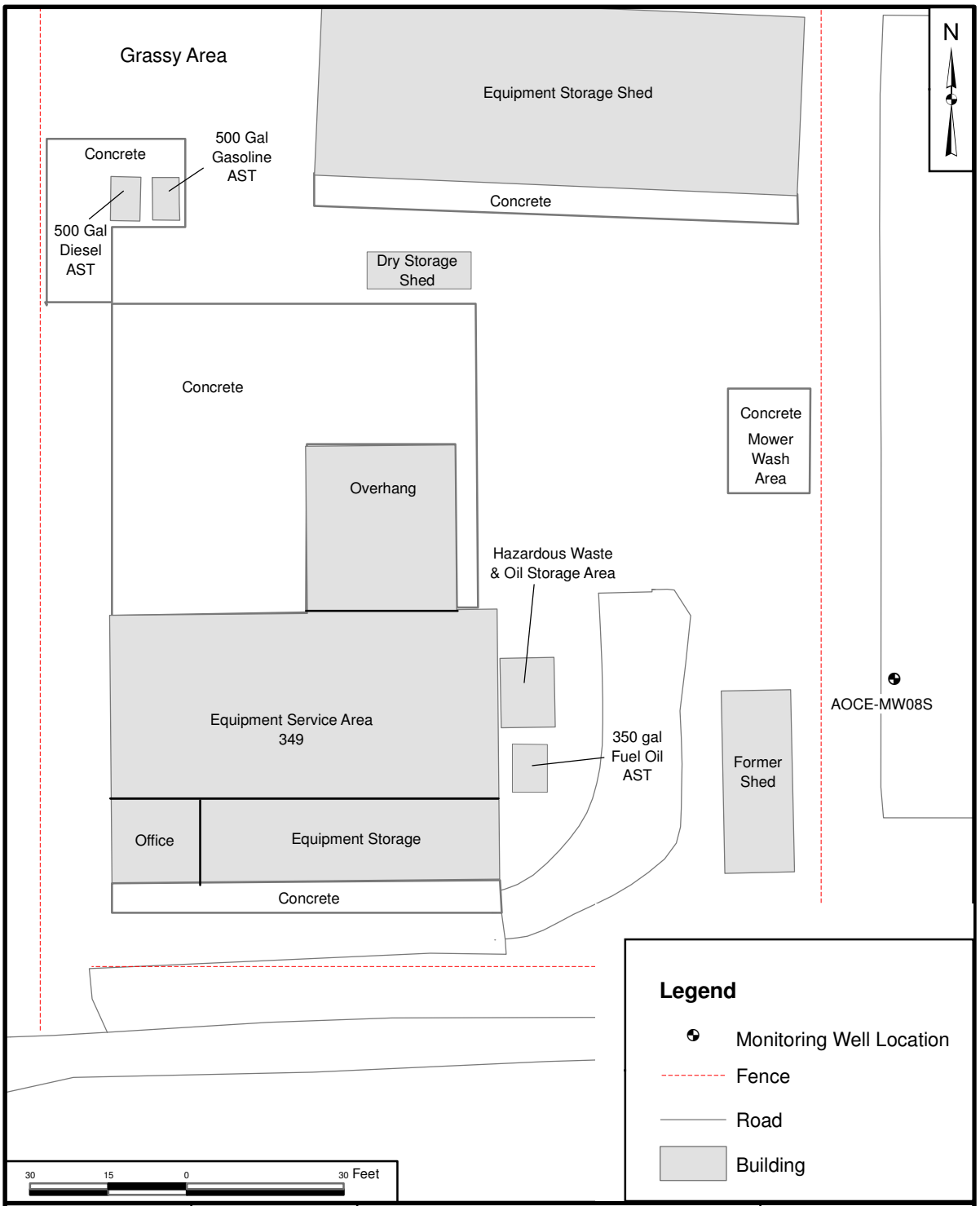


DRAWN BY S. STROZ	DATE 2/09/11	EVENT 3 MONITORING WELL LOCATION MAP SITE ASSESSMENT REPORT AOC - E NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	CONTRACT NUMBER NG2467-04-0-005
CHECKED BY R. MCCANN	DATE 11/02/11		APPROVED BY — DATE —
COST/SCHEDULE-AREA			APPROVED BY — DATE —
SCALE AS NOTED			DRAWING NO. FIGURE 2-0 / REV 0

2.1.1.1 Soil Sampling

The Event 1 soil samples were collected at the same locations which previously detected elevated concentrations of TRPH from the confirmatory sampling event completed in May 2007. Surficial soil samples (designated as “SS” in the sample identification) and subsurface soil samples (designated as “SB” in the sample identification) were collected from five confirmatory sampling event sampling locations, resulting in ten soil samples collected for laboratory analyses.

The boreholes were advanced using a stainless steel hand auger. Surface soil samples AOCE-SS001, AOCE-SS002, AOCE-SS006, AOCE-SS008, and AOCE-SS010 were collected from the 0- to 0.5-foot bls interval. Subsurface soil samples AOCE-SB001, AOCE-SB002, AOCE-SB006, AOCE-SB008, and AOCE-SB010 were collected at the 0 to 0.5-foot; 0.5 to 2-foot; and 2 to 4-foot bls. Soil samples were collected in general accordance with FDEP Standard Operating Procedure (SOP) SOP FS 3000 (FDEP, 2008). The soil sampling locations are shown on Figure 2-1.

Soil samples were placed in laboratory-provided containers, sealed, labeled, packed in ice, and shipped under chain-of-custody protocol to Accutest Laboratories Southeast, a fixed-base, National Environmental Laboratory Accreditation Conference (NELAC)-certified laboratory and were analyzed for TRPH using FL-PRO and the VPH/EPH speciated samples using the MADEP Method. The list of target analytes, by sample, is shown in Table 2-1. Soil Sampling Log Sheets are provided in Appendix B. Decontamination of field equipment was performed between each sampling location in general accordance with FDEP SOP FC 1000, Cleaning/Decontamination Procedures (FDEP, 2004).

2.1.1.2 Groundwater Sampling

Seven groundwater monitoring wells (AOCE-MW01 through AOCE-MW07) were installed using DPT methods and developed using a peristaltic pump. The monitoring wells were installed at the soil sampling locations to evaluate if the soil was impacting the groundwater. Groundwater sampling locations are shown in Figure 2-2. The screen intervals associated with these monitoring wells are listed at the bottom of Table 2-1. Specific well construction diagrams for the seven monitoring wells are included in Appendix B.

Prior to groundwater sample collection, the monitoring wells were purged to obtain samples representative of actual aquifer conditions using low-flow purging techniques (typically a rate of less than 1 liter per minute). Each well was sampled with a peristaltic pump and using dedicated Teflon™ tubing. The groundwater samples were collected using the procedures specified in FDEP SOP FS 2000 (FDEP, 2008).

The groundwater samples were placed in laboratory-provided containers, sealed, labeled, packed in ice, and shipped under chain-of-custody protocol to Accutest Laboratories Southeast a fixed-base, NELAC-certified laboratory. Monitoring wells MPT-AOCE-MW01, MPT-AOCE-MW02, MPT-AOCE-MW04, MPT-AOCE-MW05, and MPT-AOCE-MW06 were analyzed for TRPH only. Monitoring wells MPT-AOCE-MW03 and MPT-AOCE-MW07 were analyzed for arsenic only. Groundwater Sampling Sheets, which present information on the field parameters, are provided in Appendix B.

2.1.2 Event 2: December 6, 2010

The Event 2 scope of work was based on the results from the Event 1 fieldwork. According to Partnering Team meeting minutes from September 2010, the team approved installing one monitoring well downgradient of monitoring well MPT-AOCE-MW07. On November 22, 2010, monitoring well MPT-AOCE-MW08S was installed east of the six on-site LOIs using DPT methods (see Figure 2-2). The groundwater sample was collected on December 6, 2010. The screen interval associated with MPT-AOCE-MW08S is listed in Table 2-1 as the sample interval in feet bls. Specific well construction details for this monitoring well are included in Appendix B.

Prior to groundwater sample collection, the monitoring well was purged to obtain samples representative of actual aquifer conditions. The groundwater sample was collected using low-flow purging (typically a rate of less than 1 liter per minute). The well was sampled with a peristaltic pump and using dedicated Teflon™ tubing. The groundwater sample was collected using the procedures specified in FDEP SOP FS 2000 (FDEP, 2008). The groundwater sample was placed in a laboratory-provided container, sealed, labeled, packed in ice, and shipped under chain-of-custody protocol to Environmental Conservation Laboratories, Inc. a fixed-base, NELAC-certified laboratory. The sample was analyzed for arsenic. A Groundwater Sampling Sheet, which presents information on the field parameters, is provided in Appendix B.

2.2 SUPPLEMENTAL FIELD INVESTIGATION INFORMATION

2.2.1 Water Level Measurements

Groundwater level measurements were recorded at AOC E during Event 1 and on January 22, 2011. These measurements are summarized in Table 2-2. Refer to Appendix B for water level measurement field forms.

TABLE 2-2

**GROUNDWATER ELEVATION DATA
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA**

Well Identification	Total Well Depth (feet)	TOC Elevation (feet)	March 4, 2010		January 22, 2011	
			Depth to Water (feet below TOC)	Water Table Elevation (feet)	Depth to Water (feet below TOC)	Water Table Elevation (feet)
MPT-AOCE-MW01	13.23	7.57	5.56	2.01	5.65	1.92
MPT-AOCE-MW02	13.64	7.53	5.54	1.99	5.59	1.94
MPT-AOCE-MW03	13.81	7.00	5.04	1.96	5.09	1.91
MPT-AOCE-MW04	13.39	7.90	5.93	1.97	5.97	1.93
MPT-AOCE-MW05	14.14	8.72	6.71	2.01	6.78	1.94
MPT-AOCE-MW06	13.87	7.96	5.97	1.99	5.86	2.10
MPT-AOCE-MW07	13.94	7.79	5.77	2.02	6.02	1.77

Note:
TOC = top of casing

2.2.2 Quality Assurance/Quality Control Samples

QA/QC samples collected during the site investigation included trip blanks, and rinsate blanks. The frequency of collecting QA/QC samples was appropriate for the more focused scope of work implemented during this investigation.

2.2.3 Investigation-Derived Waste

Purge water, decontamination water, and investigation-derived soil wastes were collected and containerized in Department of Transportation-approved (Specification 17C) 55-gallon drums. Each drum was sealed, labeled, and transported to a pre-designated staging area located within NAVSTA Mayport as directed by NAVSTA Mayport personnel. Decontamination waste materials generated during the site investigation were containerized for proper disposal. As part of waste custody procedures, Tetra Tech conducts weekly drum inspections and records the information on an inspection checklist. The inspections will continue until the investigation-derived waste is disposed. The weekly drum inspection is submitted to Mr. Paul Malewicki of the NAVSTA Mayport Environmental Department.

3.0 INVESTIGATION RESULTS

This section presents information on site geology, site hydrology and summarizes the results from the Events 1 and 2 soil and groundwater sampling activities. The site-specific geology, hydrogeology, and hydrogeology presented in Sections 3.1 through 3.3 used data collected from AOC E as well as from previous investigations at sites located on NAVSTA Mayport. The results from Events 1 and 2 soil and groundwater sampling activities were used to characterize the nature and extent of detected analytes. The interpretation of these findings helped determine whether remediation activities are necessary to protect human health and the environment.

3.1 SITE-SPECIFIC GEOLOGY

Surficial deposits of dredge material from the Mayport Turning Basin and St. Johns River make up the interior areas of NAVSTA Mayport covering former marshes and sand flats. Beach and riverbank sands predominate in areas along the Atlantic Ocean and St. Johns River. The dredge material typically consists of fine-grained, well sorted sands and/or marine shell fragments (ABB Environmental Services, Inc. [ABB-ES], 1995).

Undifferentiated post-Hawthorn deposits are typically encountered beneath the surficial dredge depositional material. This unit consists of fairly uniform, well-sorted, poorly graded, very fine-grained sand, which typically contains minor quantities of fines consisting of silt and clay. It also typically contains numerous shell fragments and gravel. Color ranges from tan to light gray with color change typically gradational over several feet (ABB-ES, 1995).

The Upper Hawthorn Group is encountered beneath the undifferentiated post-Hawthorn deposits. This formation consists of fine- to medium-grained, tan to greenish-gray sand with black phosphatic nodules and/or lithic limestone fragments. Sandy clay, typically gray or olive green in color, may be found within this zone. In addition, clay seams may be encountered varying in thickness from inches to several feet along the zone between the Upper Hawthorn Group and the overlying post-Hawthorn deposits (ABB-ES, 1995).

A facility-specific geological characterization was performed in 1995 as part of a facility-wide RCRA corrective action sampling event. Over 135 soil borings were advanced at NAVSTA Mayport as part of that sampling event. The logs of these borings were used to describe the geology of facility. Five cross-sections were developed. The information concerning geology of the area and the figures associated with the cross-sections were abstracted from the ABB-ES 1995 report and are provided in Appendix C.

3.2 SITE-SPECIFIC HYDROGEOLOGY

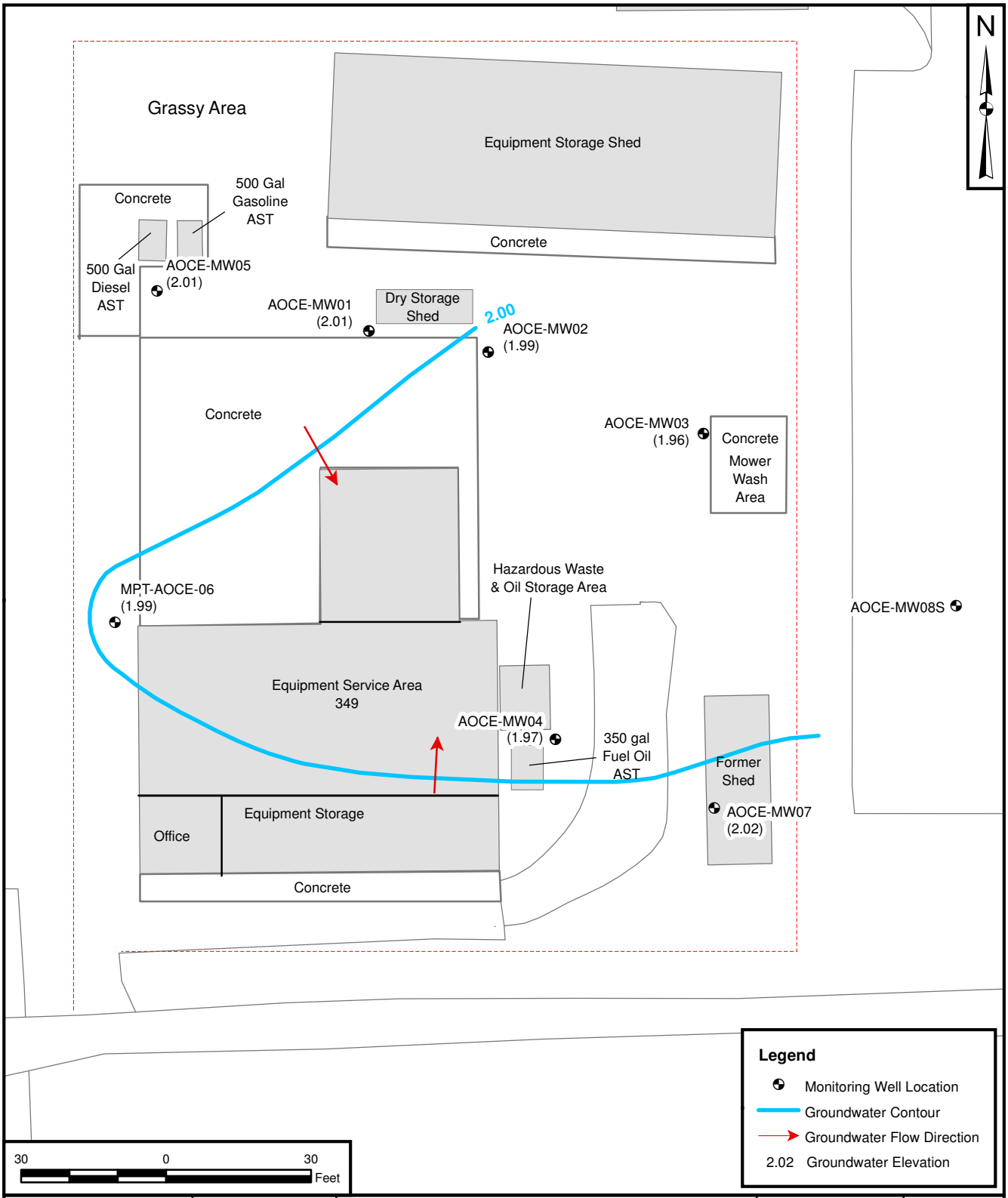
Three primary aquifer systems are recognized beneath NAVSTA Mayport (in descending order): the surficial aquifer, the intermediate Hawthorn aquifer, and the Floridan aquifer system (ABB-ES, 1995). The surficial aquifer, which extends from near the surface to a depth of nearly 100 feet bls at NAVSTA Mayport, is the uppermost aquifer beneath AOC E and is the groundwater zone considered in this report. It includes all of the undifferentiated post-Hawthorn deposits and consists of unconsolidated sand, shell, and clay, which vary horizontally and vertically in lithology, thickness, and permeability. It is recharged primarily by precipitation at a countywide estimated rate of 10 to 16 inches per year. Discharge near NAVSTA Mayport is primarily by seepage into surface water bodies and evapotranspiration. It has also been reported that groundwater becomes brackish below a depth of 40 feet bls at NAVSTA Mayport. The water table at AOC E was encountered at approximately 4 to 6 feet bls during the Tetra Tech investigations. The direction of groundwater flow in the surficial aquifer is generally to the east-northeast toward the Mayport Turning Basin.

The surficial aquifer is underlain by the Hawthorn aquifer. The Hawthorn aquifer consists of sand and limestone layers interbedded with clayey sand and sandy clay; however, the most productive limestone layer in the upper part of the Hawthorn aquifer is absent in the Mayport area (ABB-ES, 1995). Thus, the intermediate Hawthorn aquifer may be in hydraulic contact with the surficial aquifer at NAVSTA Mayport. Overall, the Hawthorn Group is a complex aquiclude that acts as a confining bed to the underlying Floridan aquifer. The primary recharge mechanism for the intermediate Hawthorn aquifer is precipitation in areas approximately 30 miles to the west of NAVSTA Mayport where the Hawthorn Group sediments occur at shallow depths.

3.3 GROUNDWATER FLOW DIRECTION

The water table elevation data recorded during the March 2010 investigation (Event 1) is presented in Table 2-2, and groundwater flow is inferred using flow direction arrows on Figure 3-1. Isocontour lines estimated from the March 2010 data indicate the direction of groundwater flow is generally towards the east across the site and is likely tidally influenced by the turning basin, which is less than 700 feet northeast of AOC E. The water table elevations ranged from a high of 2.02 feet above mean sea level to a low of 1.96 feet above mean sea level. The water table elevation data show that the horizontal gradient is very slight (i.e., the water table in the area of AOC E is close to flat). The horizontal gradient partially reflects the general topographic features of the site, which are flat and without any defining ridges or coastal dunes (see Figure 3-2). Monitoring well AOCE-MW08 was installed as part of the Event 2 activities and, therefore, not available for estimating the March 2010 groundwater flow direction. The groundwater contour was estimated in January 2011 generally to the east (see Figure 3-3). However, the groundwater contours shown in both Figures 3-1 and 3-3 are very flat.

PGH P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_GW_CONTOURS_MAR10.MXD 01/09/12 SP



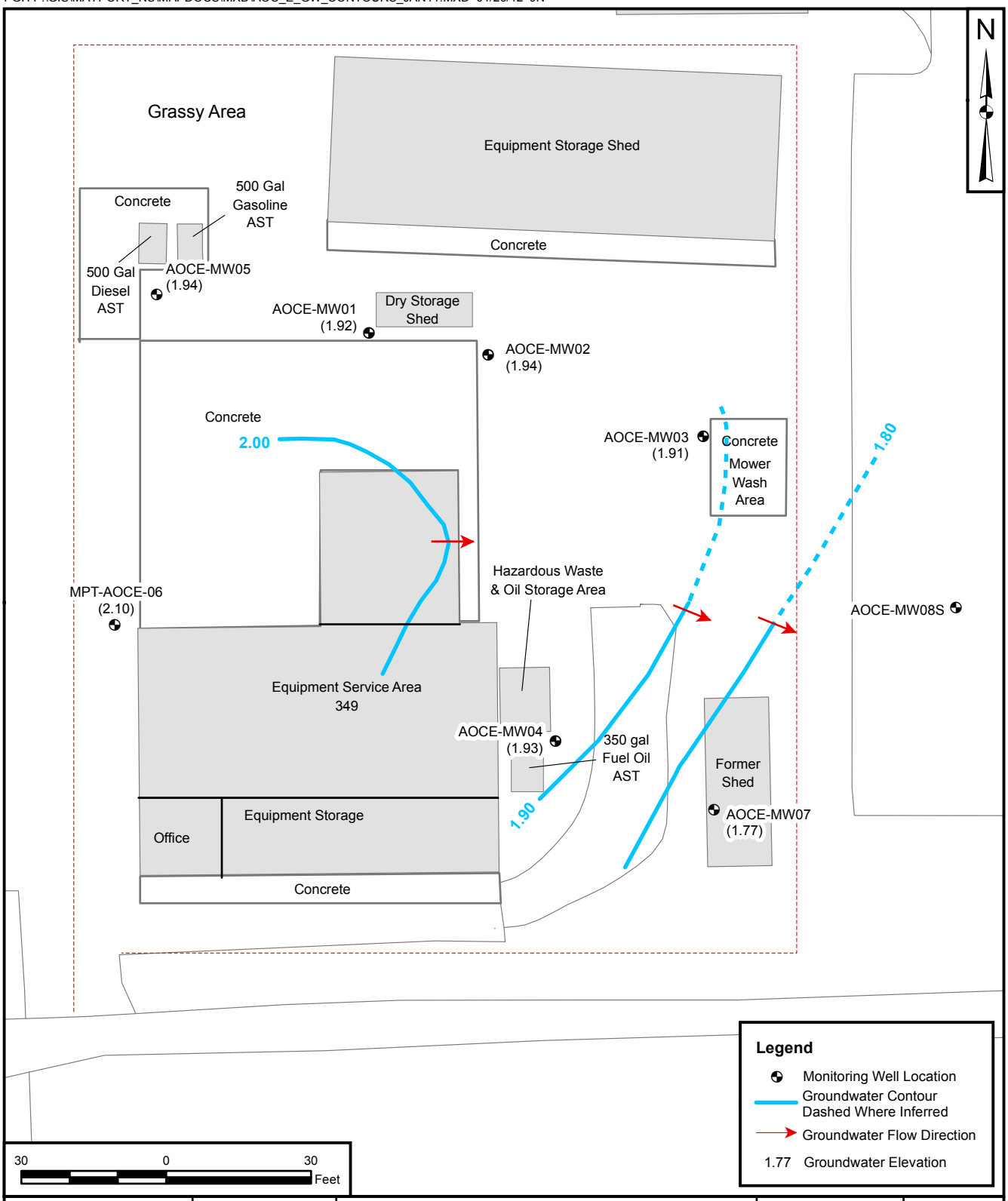
DRAWN BY	DATE			CONTRACT NUMBER	CTO NUMBER
J. ENGLISH	12/27/11		SHALLOW GROUNDWATER FLOW MAP MARCH 2010 AOC E SITE ASSESSMENT REPORT NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	0871	088
CHECKED BY	DATE			APPROVED BY	DATE
K. WIMBLE	01/09/12			___	___
REVISED BY	DATE			APPROVED BY	DATE
S. PAXTON	01/09/12			___	___
SCALE AS NOTED		NAVFAC		FIGURE NO. FIGURE 3-1	REV 0

P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_USGS.MXD 11/02/11 SS

Mayport, Florida
30081-D4-TF-024
Revised 1992
DMA 4744 IV NW-SERIES V847

DRAWN BY S. STROZ	DATE 10/10/11	USGS TOPOGRAPHIC MAP SITE ASSESSMENT REPORT AOC - E NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	CONTRACT NUMBER NG2467-04-0-005
CHECKED BY R. MCCANN	DATE 11/02/11		APPROVED BY — DATE —
COST/SCHEDULE-AREA			APPROVED BY — DATE —
SCALE AS NOTED			DRAWING NO. FIGURE 3-2 / REV 0

PGH P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_GW_CONTOURS_JAN11.MXD 01/26/12 JN



DRAWN BY	DATE	SHALLOW GROUNDWATER FLOW MAP JANUARY 2011 AOC E SITE ASSESSMENT REPORT NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	CONTRACT NUMBER	CTO NUMBER
J. ENGLISH	12/27/11		0871	088
CHECKED BY	DATE		APPROVED BY	DATE
K. WIMBLE	01/09/12		___	___
REVISED BY	DATE		APPROVED BY	DATE
J. NOVAK	01/26/12		___	___
SCALE AS NOTED			FIGURE NO. FIGURE 3-3	REV 0

3.4 AQUIFER CHARACTERISTICS

The approximate hydraulic conductivity of the surficial aquifer beneath the AOC E is provided herein based upon conditions at Site 18-A, which is approximately 3,000 feet northwest of AOC E; however, the underlying geology of Site 18-A is considered to be similar to that of AOC E. According to the custom soil resource report for Site 18-A, the average hydraulic conductivity is approximately 4.34 feet per day (Tetra Tech, 2011).

The horizontal hydraulic gradient across the site was evaluated from water level data listed in Table 2-2 and shown on Figures 3-1 and 3-3. A horizontal hydraulic gradient beneath the site was calculated using the data associated with AOCE-MW04 and AOCE-MW03. The horizontal hydraulic gradient was determined to be approximately 1.56×10^{-4} foot per foot.

Based on information provided by Driscoll (Driscoll, 1986) and on lithologic descriptions of material encountered at Site 18-A, the effective porosity of surficial aquifer sediments was estimated to be 0.30.

Using Darcy's Law, the groundwater velocity at the site was calculated.

Darcy's Law may be expressed as follows:

$$V = \frac{(K \times i)}{n}$$

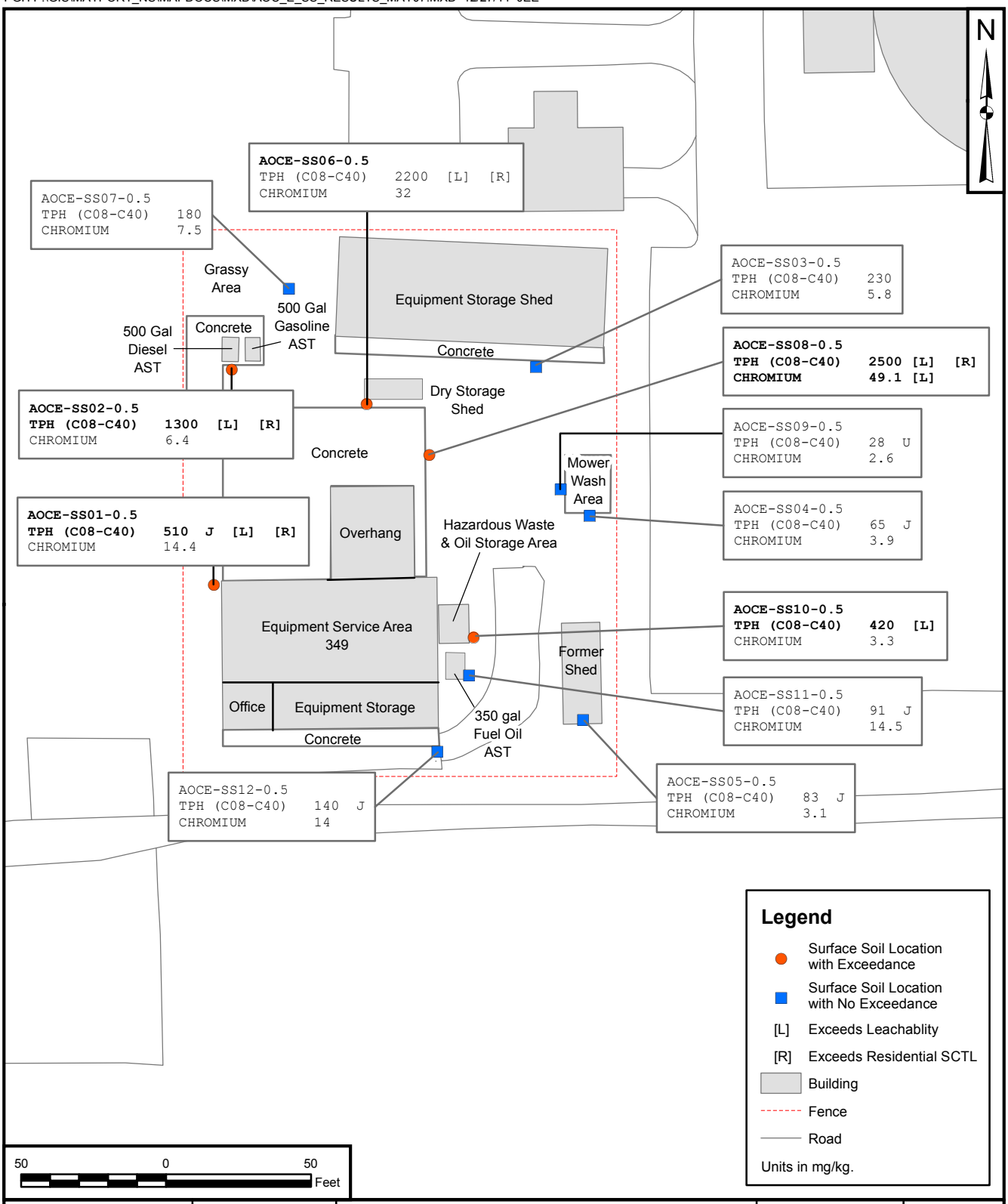
where: V = average seepage velocity
K = hydraulic conductivity
n = effective porosity
i = average hydraulic gradient

Using the average hydraulic conductivity of 4.34 feet per day, a hydraulic gradient of 1.56×10^{-4} foot per foot, an inferred effective porosity value of 0.30, and Darcy's law, the groundwater seepage velocity across the site was calculated at 0.0023 foot per day or 0.8251 foot per year.

3.5 NATURE AND EXTENT OF CONTAMINATION

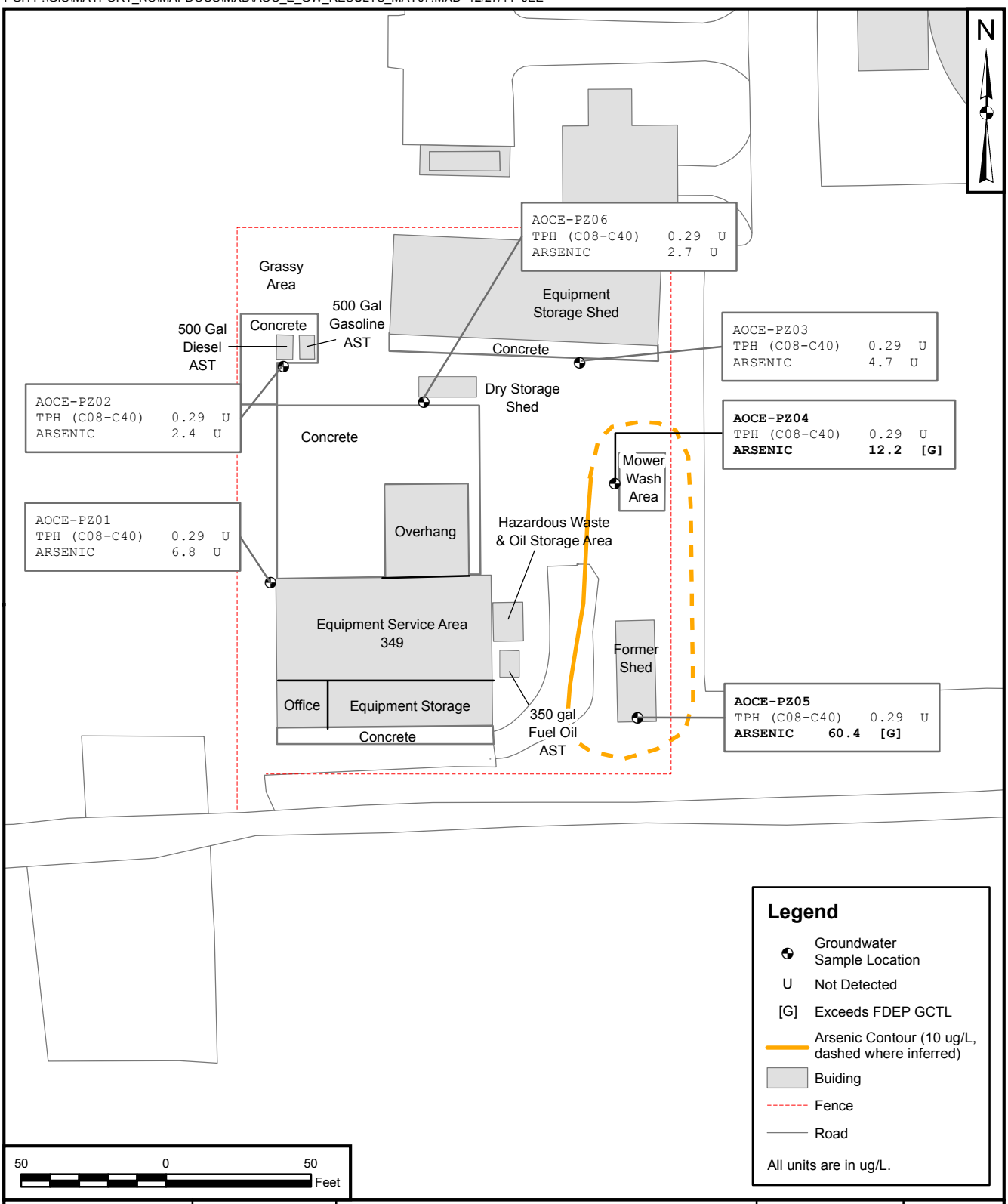
This section presents analytical results of the investigations conducted during Events 1 and 2. The scope of work for Event 1 was based on laboratory analytical results obtained during the Confirmatory Sampling event performed in May 2007 (Figures 3-4 and 3-5, Table 3-1), whereas the scope of work for Event 2 (December 2010) was based on Event 1 results (March 2010). The results from Events 1 and 2 were used to characterize the nature and extent of contaminants and to determine whether remediation activities are necessary to protect human health and the environment.

PGH P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_SS_RESULTS_MAY07.MXD 12/27/11 JEE



DRAWN BY	DATE			CONTRACT NUMBER	CTO NUMBER
J. ENGLISH	12/27/11		SURFACE SOIL SAMPLE RESULTS - MAY 2007	0871	088
CHECKED BY	DATE		SITE ASSESSMENT REPORT	APPROVED BY	DATE
K. WIMBLE	12/27/11		AOC E	—	—
REVISED BY	DATE		NAVAL STATION MAYPORT	APPROVED BY	DATE
			JACKSONVILLE, FLORIDA	—	—
SCALE AS NOTED		NAVFAC		FIGURE NO. FIGURE 3-4	REV 0

PGH P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_GW_RESULTS_MAY07.MXD 12/27/11 JEE



DRAWN BY	DATE			CONTRACT NUMBER	CTO NUMBER
J. ENGLISH	12/27/11		GROUNDWATER SAMPLE RESULTS - MAY 2007	0871	088
CHECKED BY	DATE		SITE ASSESSMENT REPORT	APPROVED BY	DATE
K. WIMBLE	12/27/11		AOC E	—	—
REVISED BY	DATE		NAVAL STATION MAYPORT	APPROVED BY	DATE
			JACKSONVILLE, FLORIDA	—	—
SCALE AS NOTED		NAVFAC		FIGURE NO. FIGURE 3-5	REV 0

TABLE 3-1

CONFIRMATORY SAMPLING REPORT SURFACE SOIL ANALYTICAL RESULTS - DETECTION ONLY
SITE ASSESSMENT REPORT, AOC E
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LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS01 MPT-AOCE-SS01-0.5 5/16/2007 0 0.5	AOCE-SS02 MPT-AOCE-SS02-0.5 5/16/2007 0 0.5	AOCE-SS03 MPT-AOCE-SS03-0.5 5/16/2007 0 0.5	AOCE-SS04 MPT-AOCE-SS04-0.5 5/16/2007 0 0.5
HERBICIDES (MG/KG)							
2,4-D	13000	770	0.7	0.026 U	0.023 U	0.024 U	0.024 U
METALS (MG/KG)							
ARSENIC	12	2.1	--	**2.7**	0.63 U	1.3	1.5
BARIUM	130000	120	1600	16.4	6.1	9.2	9.1
CADMIUM	1700	82	7.5	2	0.38	0.34	0.28
CHROMIUM	470	210	38	14.4	6.4	5.8	3.9
LEAD	1400	400	--	67.6 J	7.6 J	15.9 J	10.9 J
MERCURY	17	3	2.1	0.08	0.01 U	0.02	0.02
SILVER	8200	410	17	0.25 U	0.06 U	0.06 U	0.14 U
MISCELLANEOUS PARAMETERS							
TOTAL SOLIDS (%)	--	--	--	90	98	96	95
PESTICIDES/PCBS (MG/KG)							
4,4'-DDD	22	4.2	5.8	0.0013 U	0.0023 J	0.0017 J	0.002 J
4,4'-DDE	15	2.9	18	0.0012 J	0.0015 J	0.0033	0.0048
4,4'-DDT	15	2.9	11	0.0015 J	0.0026 J	0.002 J	0.0019 J
ALDRIN	0.3	0.06	0.2	0.00078 U	0.0014 J	0.00073 U	0.00074 U
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C08-C40)	2700	460	340	**510 J**	**1300**	230	65 J
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)							
2-METHYLNAPHTHALENE	2100	210	8.5	0.008 U	0.061	0.008 U	0.008 U
ACENAPHTHENE	20000	2400	2.1	0.006 U	0.042	0.006 U	0.006 U
ACENAPHTHYLENE	20000	1800	27	0.002 U	0.002 U	0.002 U	0.003 J
ANTHRACENE	300000	21000	2500	0.004 U	0.004 U	0.004 U	0.004 U
BAP EQUIVALENT-HALFND	0.7	0.1	--	0.026481	0.011217	0.037019	0.054803
BENZO(A)ANTHRACENE	0.7	0.1	0.8	0.024	0.014 J	0.028	0.051

TABLE 3-1

CONFIRMATORY SAMPLING REPORT SURFACE SOIL ANALYTICAL RESULTS - DETECTION ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA
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LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS01 MPT-AOCE-SS01-0.5 5/16/2007 0 0.5	AOCE-SS02 MPT-AOCE-SS02-0.5 5/16/2007 0 0.5	AOCE-SS03 MPT-AOCE-SS03-0.5 5/16/2007 0 0.5	AOCE-SS04 MPT-AOCE-SS04-0.5 5/16/2007 0 0.5
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)							
BENZO(A)PYRENE	0.7	0.1	8	0.015 J	0.005 J	0.022	0.035
BENZO(B)FLUORANTHENE	--	--	2.4	0.044	0.018 J	0.064	0.087
BENZO(G,H,I)PERYLENE	52000	2500	32000	0.017 J	0.006 J	0.025 J	0.027 J
BENZO(K)FLUORANTHENE	--	--	24	0.007 J	0.003 UJ	0.01 J	0.017 J
CHRYSENE	--	--	77	0.011 J	0.003 U	0.019 J	0.033
DIBENZO(A,H)ANTHRACENE	--	--	0.7	0.004 U	0.004 UJ	0.004 U	0.004 U
FLUORANTHENE	59000	3200	1200	0.026	0.004 U	0.034	0.08
FLUORENE	33000	2600	160	0.003 U	0.054	0.003 U	0.003 U
INDENO(1,2,3-CD)PYRENE	--	--	6.6	0.026	0.01 J	0.037	0.038
NAPHTHALENE	300	55	1.2	0.003 U	0.019 J	0.003 U	0.003 U
PHENANTHRENE	36000	2200	250	0.012 J	0.003 U	0.011 J	0.03
PYRENE	45000	2400	880	0.021 J	0.027	0.028	0.061
SEMIVOLATILES (MG/KG)							
BIS(2-ETHYLHEXYL)PHTHALATE	390	72	3600	1.7	0.33 U	0.34 U	0.39
BUTYL BENZYL PHTHALATE	380000	17000	310	0.16 U	0.15 U	0.15 U	0.16 U
DI-N-OCTYL PHTHALATE	39000	1700	480000	0.28 U	0.26 U	0.26 U	0.26 U
VOLATILES (MG/KG)							
ACETONE	68000	11000	25	0.015 U	0.016 J	0.016 UJ	0.016 UJ
ETHYLBENZENE	9200	1500	0.6	0.0009 U	0.001 J	0.0009 U	0.001 U
M+P-XYLENES	--	--	--	0.004 U	0.006 J	0.004 U	0.005 U
O-XYLENE	--	--	--	0.002 U	0.003 J	0.002 U	0.002 U
TOTAL XYLENES	700	130	0.2	0.006 U	0.009	0.006 U	0.007 U

TABLE 3-1

CONFIRMATORY SAMPLING REPORT SURFACE SOIL ANALYTICAL RESULTS - DETECTION ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA
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LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS05 MPT-AOCE-SS05-0.5 5/16/2007 0 0.5	AOCE-SS06 MPT-AOCE-SS06-0.5 5/16/2007 0 0.5	AOCE-SS07 MPT-AOCE-SS07-0.5 5/16/2007 0 0.5	AOCE-SS08 MPT-AOCE-SS08-0.5 5/16/2007 0 0.5
HERBICIDES (MG/KG)							
2,4-D	13000	770	0.7	0.033	0.028 U	0.023 U	0.025 U
METALS (MG/KG)							
ARSENIC	12	2.1	--	1.7	**5.5**	1.5	2.1
BARIUM	130000	120	1600	5.5	32.2	12.8	21.3
CADMIUM	1700	82	7.5	0.78	3.8	0.39	3.1
CHROMIUM	470	210	38	3.1	32	7.5	**49.1**
LEAD	1400	400	--	12 J	74.3 J	32.8 J	186 J
MERCURY	17	3	2.1	0.02	0.05	0.12	0.04
SILVER	8200	410	17	0.08 U	0.14 U	0.08 U	0.18 U
MISCELLANEOUS PARAMETERS							
TOTAL SOLIDS (%)	--	--	--	99	83	99	92
PESTICIDES/PCBS (MG/KG)							
4,4'-DDD	22	4.2	5.8	0.0017 J	0.0014 U	0.0049 J	0.0024 J
4,4'-DDE	15	2.9	18	0.015	0.0028 J	0.016	0.0019 J
4,4'-DDT	15	2.9	11	0.0029 J	0.0035 J	0.006 J	0.0009 UJ
ALDRIN	0.3	0.06	0.2	0.0007 U	0.00084 U	0.00071 U	0.00076 U
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C08-C40)	2700	460	340	83 J	**2200**	180	**2500**
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)							
2-METHYLNAPHTHALENE	2100	210	8.5	0.007 U	0.01 J	0.007 U	0.012 J
ACENAPHTHENE	20000	2400	2.1	0.006 U	0.007 U	0.006 U	0.006 U
ACENAPHTHYLENE	20000	1800	27	0.002 U	0.007 J	0.007 J	0.002 U
ANTHRACENE	300000	21000	2500	0.004 U	0.004 U	0.005 J	0.004 U
BAP EQUIVALENT-HALFND	0.7	0.1	8	0.053521	0.129343	0.100162	0.035428
BENZO(A)ANTHRACENE	0.7	0.1	0.8	0.053	0.099	0.083	0.028

TABLE 3-1

CONFIRMATORY SAMPLING REPORT SURFACE SOIL ANALYTICAL RESULTS - DETECTION ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA
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LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS05 MPT-AOCE-SS05-0.5 5/16/2007 0 0.5	AOCE-SS06 MPT-AOCE-SS06-0.5 5/16/2007 0 0.5	AOCE-SS07 MPT-AOCE-SS07-0.5 5/16/2007 0 0.5	AOCE-SS08 MPT-AOCE-SS08-0.5 5/16/2007 0 0.5
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)							
BENZO(A)PYRENE	0.7	0.1	8	0.033	0.083	0.053	0.02 J
BENZO(B)FLUORANTHENE	--	--	2.4	0.088	0.22	0.12	0.068
BENZO(G,H,I)PERYLENE	52000	2500	32000	0.026 J	0.094 J	0.037 J	0.076 J
BENZO(K)FLUORANTHENE	--	--	24	0.018 J	0.036	0.021	0.011 J
CHRYSENE	--	--	77	0.041	0.083	0.052	0.018 J
DIBENZO(A,H)ANTHRACENE	--	--	0.7	0.004 U	0.004 U	0.021	0.004 U
FLUORANTHENE	59000	3200	1200	0.058	0.12	0.085	0.032
FLUORENE	33000	2600	160	0.003 U	0.004 U	0.003 U	0.003 U
INDENO(1,2,3-CD)PYRENE	--	--	6.6	0.042	0.12	0.056	0.037
NAPHTHALENE	300	55	1.2	0.004 J	0.003 U	0.003 U	0.003 U
PHENANTHRENE	36000	2200	250	0.017 J	0.036	0.02	0.014 J
PYRENE	45000	2400	880	0.057	0.13	0.077	0.029
SEMIVOLATILES (MG/KG)							
BIS(2-ETHYLHEXYL)PHTHALATE	390	72	3600	0.32 U	0.52	0.33 U	0.35 U
BUTYL BENZYL PHTHALATE	380000	17000	310	0.15 U	0.22 J	0.15 U	0.16 U
DI-N-OCTYL PHTHALATE	39000	1700	480000	0.25 U	0.30 U	0.25 U	0.27 U
VOLATILES (MG/KG)							
ACETONE	68000	11000	25	0.015 UJ	0.026 U	0.016 U	0.02 U
ETHYLBENZENE	9200	1500	0.6	0.0009 U	0.002 U	0.001 U	0.001 U
M+P-XYLENES	--	--	--	0.004 U	0.008 U	0.005 U	0.006 U
O-XYLENE	--	--	--	0.002 U	0.003 U	0.002 U	0.002 U
TOTAL XYLENES	700	130	0.2	0.006 U	0.011 U	0.007 U	0.008 U

TABLE 3-1

CONFIRMATORY SAMPLING REPORT SURFACE SOIL ANALYTICAL RESULTS - DETECTION ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA
PAGE 5 OF 7

LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS09 MPT-AOCE-SS09-0.5 5/16/2007 0 0.5	AOCE-SS10 MPT-AOCE-SS10-0.5 5/16/2007 0 0.5	AOCE-SS11 MPT-AOCE-SS11-0.5 5/16/2007 0 0.5	AOCE-SS12 MPT-AOCE-SS12-0.5 5/16/2007 0 0.5
HERBICIDES (MG/KG)							
2,4-D	13000	770	0.7	0.024 U	0.024 UJ	0.024 U	0.024 U
METALS (MG/KG)							
ARSENIC	12	2.1	--	1.4	1	**2.7**	**6.7**
BARIUM	130000	120	1600	4.5	9.4	19.8	26.3
CADMIUM	1700	82	7.5	0.18	0.24	1.1	0.52
CHROMIUM	470	210	38	2.6	3.3	14.5	14
LEAD	1400	400	--	7.8 J	10.6 J	30.5 J	22.7 J
MERCURY	17	3	2.1	0.02	0.02	0.08	0.10
SILVER	8200	410	17	0.06 U	0.13 U	0.72	1.3
MISCELLANEOUS PARAMETERS							
TOTAL SOLIDS (%)	--	--	--	96	98	96	96
PESTICIDES/PCBS (MG/KG)							
4,4'-DDD	22	4.2	5.8	0.0027 J	0.0012 U	0.0016 J	0.011 J
4,4'-DDE	15	2.9	18	0.0077	0.0024 J	0.0034 J	0.0058 J
4,4'-DDT	15	2.9	11	0.0049 J	0.00085 UJ	0.0027 J	0.00086 UJ
ALDRIN	0.3	0.06	0.2	0.00073 U	0.00072 UJ	0.00072 U	0.00072 U
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C08-C40)	2700	460	340	28 U	**420**	91 J	140 J
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)							
2-METHYLNAPHTHALENE	2100	210	8.5	0.008 U	0.007 U	0.008 U	0.008 U
ACENAPHTHENE	20000	2400	2.1	0.006 U	0.006 U	0.006 U	0.006 U
ACENAPHTHYLENE	20000	1800	27	0.002 U	0.002 U	0.004 J	0.002 U
ANTHRACENE	300000	21000	2500	0.004 U	0.004 U	0.004 U	0.004 U
BAP EQUIVALENT-HALFND	0.7	0.1	8	0.018646	0.021669	0.036636	0.008767
BENZO(A)ANTHRACENE	0.7	0.1	0.8	0.02 J	0.019 J	0.038 J	0.011 J

TABLE 3-1

CONFIRMATORY SAMPLING REPORT SURFACE SOIL ANALYTICAL RESULTS - DETECTION ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA
PAGE 6 OF 7

LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS09 MPT-AOCE-SS09-0.5 5/16/2007 0 0.5	AOCE-SS10 MPT-AOCE-SS10-0.5 5/16/2007 0 0.5	AOCE-SS11 MPT-AOCE-SS11-0.5 5/16/2007 0 0.5	AOCE-SS12 MPT-AOCE-SS12-0.5 5/16/2007 0 0.5
POLYCYCLIC AROMATIC HYDROCARBONS (MG/KG)							
BENZO(A)PYRENE	0.7	0.1	8	0.01 J	0.012 J	0.022	0.004 J
BENZO(B)FLUORANTHENE	--	--	2.4	0.028	0.036	0.055 J	0.014 J
BENZO(G,H,I)PERYLENE	52000	2500	32000	0.011 J	0.014 J	0.023	0.004 J
BENZO(K)FLUORANTHENE	--	--	24	0.004 J	0.006 J	0.012 J	0.003 U
CHRYSENE	--	--	77	0.006 J	0.009 J	0.016 J	0.003 U
DIBENZO(A,H)ANTHRACENE	--	--	0.7	0.004 U	0.004 U	0.004 UJ	0.004 U
FLUORANTHENE	59000	3200	1200	0.019 J	0.022	0.034	0.008 J
FLUORENE	33000	2600	160	0.003 U	0.003 U	0.003 U	0.003 U
INDENO(1,2,3-CD)PYRENE	--	--	6.6	0.018 J	0.021	0.032	0.005 U
NAPHTHALENE	300	55	1.2	0.003 U	0.003 U	0.003 U	0.003 U
PHENANTHRENE	36000	2200	250	0.008 J	0.01 J	0.013 J	0.007 J
PYRENE	45000	2400	880	0.013 J	0.016 J	0.031	0.003 J
SEMIVOLATILES (MG/KG)							
BIS(2-ETHYLHEXYL)PHTHALATE	390	72	3600	0.34 U	0.67	0.33 U	0.33 U
BUTYL BENZYL PHTHALATE	380000	17000	310	0.15 U	0.59	0.15 U	0.15 U
DI-N-OCTYL PHTHALATE	39000	1700	480000	0.26 U	1.3	0.26 U	0.26 U
VOLATILES (MG/KG)							
ACETONE	68000	11000	25	0.014 UJ	0.014 UJ	0.022 UJ	0.013 U
ETHYLBENZENE	9200	1500	0.6	0.0008 U	0.0009 U	0.001 U	0.0008 U
M+P-XYLENES	--	--	--	0.004 U	0.004 U	0.006 U	0.004 U
O-XYLENE	--	--	--	0.002 U	0.002 U	0.002 U	0.001 U
TOTAL XYLENES	700	130	0.2	0.006 U	0.006 U	0.008 U	0.005 U

TABLE 3-1

CONFIRMATORY SAMPLING REPORT SURFACE SOIL ANALYTICAL RESULTS - DETECTION ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA
PAGE 7 OF 7

Notes:
(1) The FDEP-approved soil background concentration is 13.7 milligrams per kilogram (mg/kg).
(2) Total benzo(a)pyrene equivalents were calculated in accordance with the FDEP benzo(a)pyrene conversion table.
(http://www.dep.state.fl.us/waste/quick_topics/publications/pss/pcp/BaPConversionTable112607.xls)
Bold values exceed criteria.
J = estimated value
NC = no criteria for this constituent
U = less than laboratory method detection limit

During the AOC E site investigations, surface soil, subsurface soil, and groundwater samples were collected in the areas across the site designated as LOIs. Soil samples and groundwater samples were collected and analyzed for the analytes shown on Table 2-1. Complete soil and groundwater analytical reports along with the QA/QC results are provided in Appendix D. The findings associated with the detected results in the soil and groundwater samples are presented in Sections 3.5.1 and 3.5.2, respectively. Analytical results from fixed-base laboratories were subjected to a cursory data validation.

3.5.1 Soil Analytical Results

Soil samples were collected and analyzed as part of the Event 1 assessment activities. No soil samples were collected as part of Event 2. The associated results are reported in the following two subsections.

3.5.1.1 Event 1: March 1, 2010, and March 8, 2010

As noted in Section 2.1, the Event 1 soil samples were collected from the confirmatory sampling event soil sample locations performed in May 2007 containing elevated concentrations of TRPH (See Figure 3-4). The goal of this soil sampling effort was to use the MADEP method to characterize the TRPH detections and evaluate risk using the more detailed method.

Ten soil samples were taken from the surface (0 to 0.5 foot bls) and subsurface (2 to 4 feet bls) and submitted to a fixed-base laboratory for analyses. The results by sampling interval are discussed below.

Surface Soil Sample Results 0 to 0.5 foot bls

All surface soil samples were analyzed for TRPH using FL-PRO and for speciated TRPH (Method 5035) using the MADEP Method resulting in VPH/EPH portions. The MADEP approach breaks up the C9-C18 aliphatic range to enable detection of all gasoline range hydrocarbons. As a result, the aliphatic and aromatic hydrocarbons are divided into six separate ranges, three detected by the VPH method and three by the EPH method (FDEP, 2005). The MADEP VPH/EPH technique is also called TRPH Fractionation. According to the FDEP, soils analyzed using FL-PRO that exceed the TRPH SCTLs, but not the SCTLs associated with the MADEP Method, do not need to be remediated.

Surface soil sample collected from MPT-AOCE-SS06-0.5-030110 contained only TRPH exceeding FDEP SCTLs. No other surface soil samples exceeded the SCTLs for TRPH (see Table 3-2 and Figure 3-6). C11-C22 hydrocarbon ranges and C-19-C36 hydrocarbon ranges were detected by the EPH Method in select surface soil samples; however, none of the detected speciated concentrations of TRPH exceeded their respective SCTLs (see Table 3-2 and Figure 3-6). Therefore, TRPH is not considered to be present at the site exceeding FDEP SCTLs.

TABLE 3-2

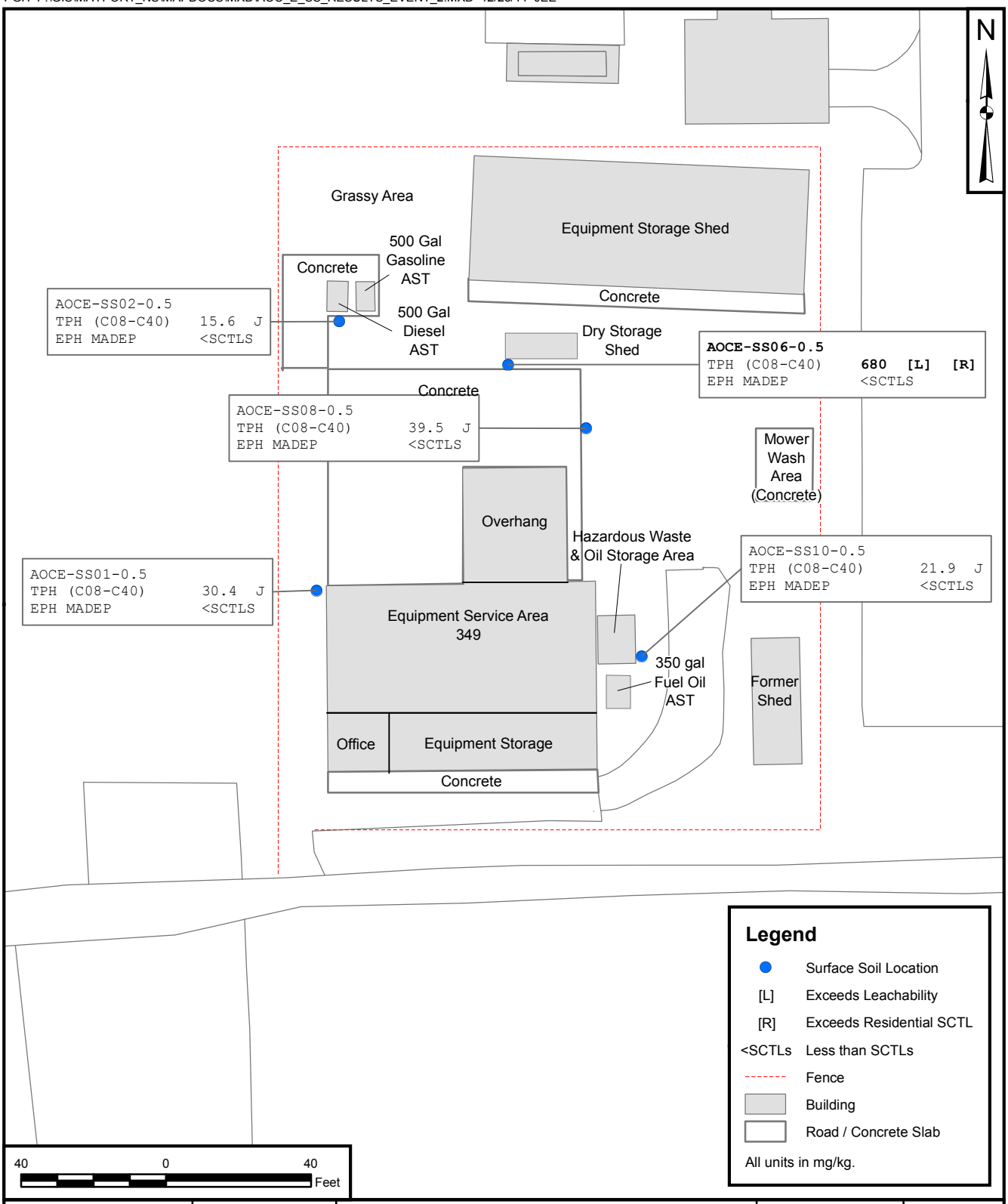
EVENT 1 SURFACE SOIL ANALYTICAL RESULTS - DETECTIONS ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLPRODA

LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS01 MPT-AOCE-SS001-0.5-030110 3/1/2010 3/1/2010	AOCE-SS02 MPT-AOCE-SS002-0.5-030110 3/1/2010 3/1/2010	AOCE-SS06 MPT-AOCE-SS006-0.5-030110 3/1/2010 3/1/2010
EPH MADEP (MG/KG)						
C11-C22 AROMATICS-UNADJ	15000	1800	1000	20 U	19 U	95.2
C19-C36 ALIPHATICS	280000	42000	NC	16.1	21.5	660
C9-C18 ALIPHATICS	21000	2900	140000	9.8 U	9.3 U	29.5
PETROLEUM HYDROCARBONS (MG/KG)						
TPH (C08-C40)	2700	460	340	30.4 J	15.6 J	**680**

LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS08 MPT-AOCE-SS008-0.5-030110 3/1/2010 3/1/2010	AOCE-SS10 MPT-AOCE-SS010-0.5-030110 3/1/2010 3/1/2010
EPH MADEP (MG/KG)					
C11-C22 AROMATICS-UNADJ	15000	1800	1000	19 U	19 U
C19-C36 ALIPHATICS	280000	42000	NC	68.8	14.4
C9-C18 ALIPHATICS	21000	2900	140000	9.4 U	9.3 U
PETROLEUM HYDROCARBONS (MG/KG)					
TPH (C08-C40)	2700	460	340	39.5 J	21.9 J

Notes:
Bold values exceed criteria.
J = estimated value
NC = no criteria for this constituent
U = less than laboratory method detection limit

PGH P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_SS_RESULTS_EVENT_2.MXD 12/23/11 JEE



DRAWN BY	DATE			CONTRACT NUMBER	CTO NUMBER
J. ENGLISH	12/23/11		EVENT 1	0871	088
CHECKED BY	DATE		SURFACE SOIL SAMPLE DETECTIONS	APPROVED BY	DATE
K. WIMBLE	12/23/11		MARCH 2010	—	—
REVISED BY	DATE		SITE ASSESSMENT REPORT	APPROVED BY	DATE
			AOC E	—	—
SCALE		NAVFAC	NAVAL STATION MAYPORT	FIGURE NO.	REV
AS NOTED			JACKSONVILLE, FLORIDA	FIGURE 3-6	0

Subsurface Soil Sample Results 3.5 to 4 feet bls

Subsurface soil samples were collected at the same locations of the surface soil sample locations. No analytes were detected at concentrations greater than FDEP SCTLs (see Table 3-3 and Figure 3-7).

3.5.1.2 Soil Results Summary

During the 2007 confirmatory sampling event, five soils samples contained TRPH concentrations greater than the FDEP residential SCTLs (Table 3-1). The soil samples collected during Event 1 (March 2010) were analyzed for TRPH using FL-PRO and TRPH speciation. Only one surface soil sample showed TRPH concentrations exceeding the FDEP SCTLs for Direct Exposure in Residential scenarios; however, none of the surface or subsurface soil samples showed TRPH speciation results exceeding the associated SCTLs (see Table 3-2). The implications of these findings are discussed in Section 4.0 of this SAR.

3.5.2 Groundwater Analytical Results

Groundwater samples were collected and analyzed for event-specific analytes (see Table 2-1) based on groundwater results collected during the CS events in May 2007 (see Figure 3-5). The following three subsections present the results of the groundwater analyses.

3.5.2.1 Event 1: March 1, 2010, and March 8, 2010

Groundwater samples were collected from seven groundwater monitoring wells and analyzed for arsenic and TRPH (TRPH from monitoring wells MPT-AOCE-MW01, MPT-AOCE-MW02, MPT-AOCE-MW04, MPT-AOCE-MW05, MPT-AOCE-MW06 and arsenic from monitoring wells MPT-AOCE-MW03 and MPT-AOCE-MW07) The groundwater sampling locations situated with the soil sampling locations were used to confirm if the soil was acting as a source of contamination. The wells sampled for arsenic were intended to confirm the detection documented in the CSR.

Arsenic exceeded its GCTL of 10 micrograms per liter (µg/L) in monitoring well MPT-AOCE-MW07 at 18.6 µg/L (see Table 3-4). The arsenic groundwater contamination in the southeastern portion of AOC E is shown on Figure 3-8.

3.5.2.2 Event 2: December 6, 2010

Monitoring well MTP-AOCE-MW08S was installed on November 22, 2010, to help define the lateral extent of arsenic groundwater contamination. The monitoring well was sampled on December 6, 2010, and the groundwater sample was analyzed for arsenic. Arsenic was not detected during Event 2 sampling events.

TABLE 3-3

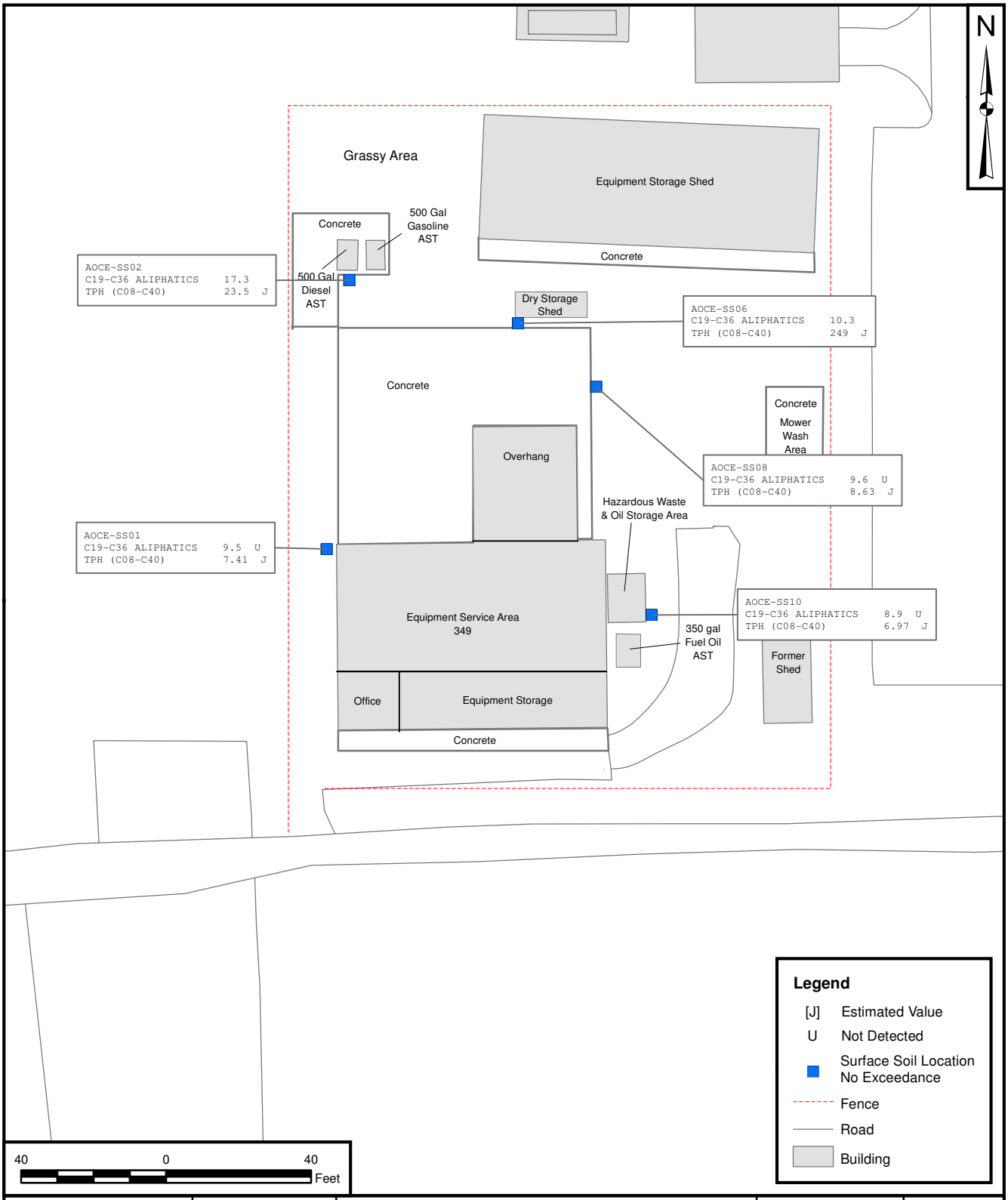
EVENT 1 SUBSURFACE SOIL ANALYTICAL RESULTS - DETECTIONS ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA

LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS01 MPT-AOCE-SB001-04-030110 3/1/2010 3.5 4	AOCE-SS02 MPT-AOCE-SB002-04-030110 3/1/2010 3.5 4	AOCE-SS06 MPT-AOCE-SB006-04-030110 3/1/2010 3.5 4
EPH MADEP (MG/KG)						
C19-C36 ALIPHATICS	280000	42000	NC	9.5 U	17.3	10.3
PETROLEUM HYDROCARBONS (MG/KG)						
TPH (C08-C40)	2700	460	340	7.41 J	23.5 J	249 J

LOCATION SAMPLE IDENTIFICATION SAMPLE DATE TOP DEPTH BOTTOM DEPTH	FDEP INDUSTRIAL SCTL	FDEP RESIDENTIAL SCTL	FDEP LEACHABILITY SCTL	AOCE-SS08 MPT-AOCE-SB008-04-030110 3/1/2010 3.5 4	AOCE-SS10 MPT-AOCE-SB010-04-030110 3/1/2010 3.5 4
EPH MADEP (MG/KG)					
C19-C36 ALIPHATICS	280000	42000	NC	9.6 U	8.9 U
PETROLEUM HYDROCARBONS (MG/KG)					
TPH (C08-C40)	2700	460	340	8.63 J	6.97 J

Notes:
J = estimated value
NC = no criteria for this constituent
U = less than laboratory method detection limit

P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_SB_RESULTS_EVENT1.MXD 01/10/12 SP



DRAWN BY	DATE			CONTRACT NUMBER	CTO NUMBER
S. STROZ	10/31/11		EVENT 1 SUBSURFACE	NG2467-04-0-0055	
CHECKED BY	DATE		SOIL SAMPLE RESULTS - MARCH 2010	APPROVED BY	DATE
K. WIMBLE	01/10/12		SITE ASSESSMENT REPORT	___	___
REVISED BY	DATE		AOC E	APPROVED BY	DATE
S. PAXTON	01/10/12		NAVAL STATION MAYPORT	___	___
SCALE		NAVFAC	JACKSONVILLE, FLORIDA	FIGURE NO.	REV
AS NOTED				FIGURE 3-7	0

TABLE 3-4

EVENTS 1 AND 2 GROUNDWATER ANALYTICAL RESULTS – DETECTIONS ONLY
SITE ASSESSMENT REPORT, AOC E
NAVAL STATION MAYPORT
JACKSONVILLE, FLORIDA

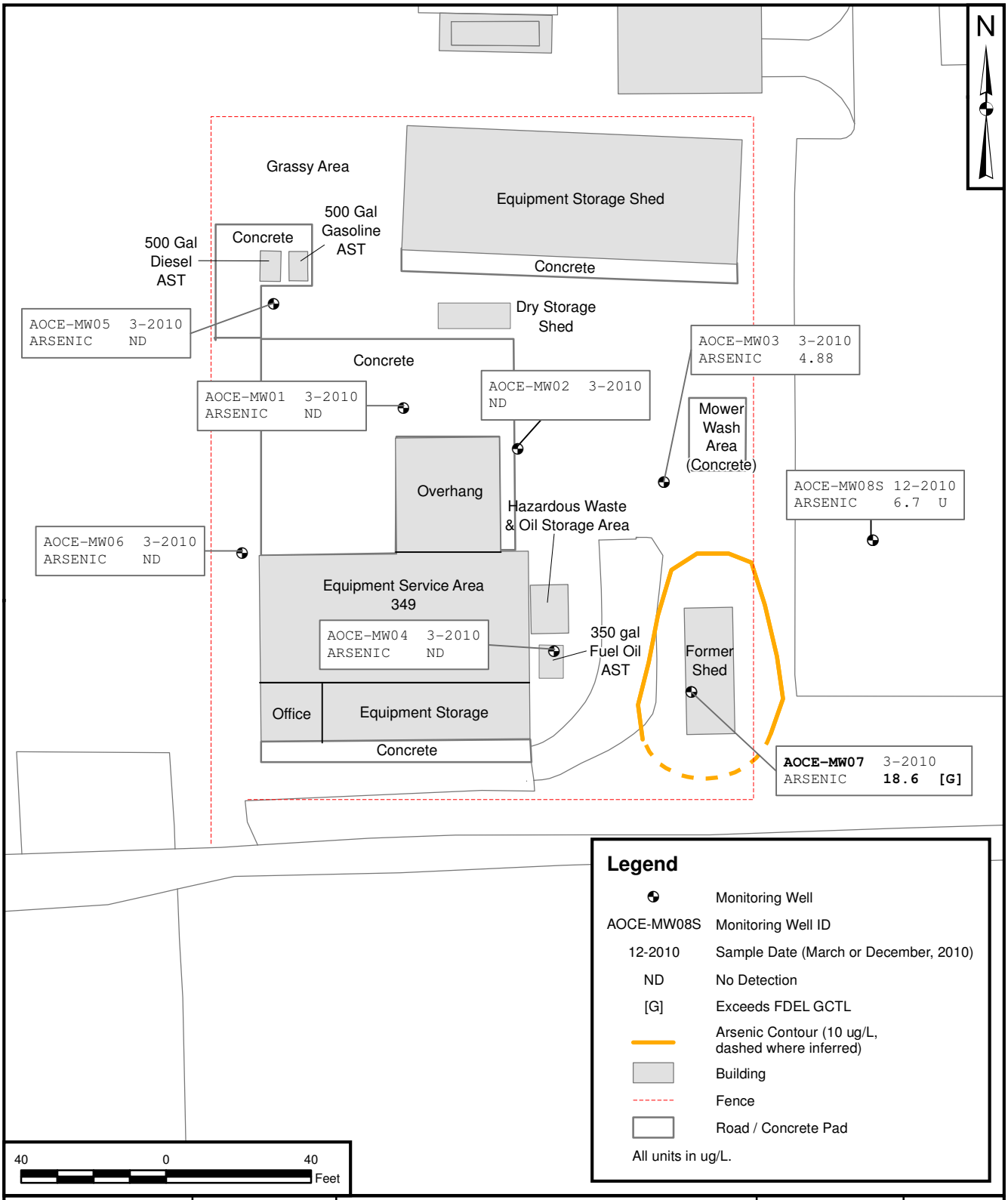
LOCATION **SAMPLE IDENTIFICATION** **SAMPLE DATE**	**FDEP GCTL**	**AOCE-MW03** **MPT-AOCE-GW-MW03-030810** **3/8/2010**	**AOCE-MW07** **MPT-AOCE-GW-MW07-030810** **3/8/2010**	**AOCE-MW08** **MPT-AOC-E-MW08S-20101206** **12/6/2010**
METALS (µg/L)				
Arsenic	10	4.88	**18.6**	6.7 U

NOTES:
BOLDED value exceeds criteria.
U = less than laboratory method detection limit

3.5.2.3 Groundwater Results Summary

Arsenic was detected at a concentration exceeding the FDEP GCTL of 10 µg/L in monitoring well MPT-AOCE-MW07 at the Former Storage Shed location in the southeastern portion of AOC E. The approximate extent of groundwater impacted with arsenic is shown on Figure 3-8. The arsenic groundwater contamination assessed during Event 1 and Event 2 activities is approximately 18,584 square feet or 0.04 acre (where Major Radius = approximately 19.5 feet and Minor Radius = 14.5 feet).

PGH P:\GIS\MAYPORT_NS\MAPDOCS\MXD\AOC_E_GW_RESULTS_ABOVE_GCTL_REV.MXD 01/09/12 SP



DRAWN BY	DATE		EVENTS 1 AND 2 GROUNDWATER SAMPLE DETECTIONS - MARCH AND DECEMBER 2010 SRE ASSESSMENT REPORT AOC E NAVAL STATION MAYPORT JACKSONVILLE, FLORIDA	CONTRACT NUMBER	CTO NUMBER
J. ENGLISH	12/23/11			0871	088
CHECKED BY	DATE			APPROVED BY	DATE
K. WIMBLE	12/23/11			___	___
REVISED BY	DATE			APPROVED BY	DATE
S. PAXTON	01/09/12			___	___
SCALE AS NOTED		NAVFAC		FIGURE NO. FIGURE 3-8	REV 0

4.0 AOC E SITE ASSESSMENT CONCLUSIONS AND RECOMMENDATIONS

This SAR was prepared in general accordance with Operating and Corrective Action Permit Number 72442-HO-004 issued August 17, 2009. The SAR presents information that characterizes the nature and extent of contaminants associated with AOC E and interprets this information to determine if remediation activities are necessary to protect human health and the environment.

AOC E is a relatively small area (0.63 acre in total area) that is characterized as having light commercial and/or light industrial land use patterns. The Navy Morale, Welfare, and Recreation Department use the structures on AOC E to maintain and store golf course maintenance equipment and golf course maintenance supplies. Based upon past site usage, a limited assessment associated with the removal of two USTs and a visual site inspection, it was determined that full site assessment was necessary at the site.

The Confirmation Sampling (CS) report detailing the confirmatory sampling results and was submitted in 2007. The results were used to refine the target analyte list to TRPH and arsenic and focus additional soil and groundwater sampling locations. A RFI/CMS Work Plan was submitted in July 2009 and recommended additional soil and groundwater sampling based on the CS results. After the January 2010 Partnering Team meeting, an email was sent to the Partnering Team detailing the final details of the work plan for this SAR.

Two sampling events were conducted during the period addressed by the site assessment. After the results from Event 1 were reviewed, the partnering team decided to install an additional groundwater monitoring well to define the horizontal extent of contamination. The monitoring well was installed, and a single groundwater sample was collected during Event 2.

Results showed TRPH exceeded its residential SCTL at MPT-AOCE-SS06 at 0.5 foot bls; however, the results from the same sample for the speciated TRPH components did not exceed respective SCTLs. No other soil sample TRPH result from Event 1 exceeded the TRPH SCTL. Groundwater samples showed one exceedance of arsenic at MPT-AOCE-MW07. However, NAVSTA Mayport personnel report that arsenic or pesticides containing arsenic were not stored in this area. After combining the previous groundwater sampling events from the CSR, the area of arsenic-contaminated groundwater was determined to be approximately 0.04 acre in the southeastern portion of AOC E. A task order is currently funded for a background study of the naturally-occurring levels of arsenic in groundwater at NAVSTA Mayport. Once the results from the background study are analyzed, the current levels of arsenic in monitoring well MPT-AOCE-MW07 should be compared to the background study. It is

anticipated that the levels of arsenic in monitoring well MPT-AOCE-MW07 may be representative of the naturally occurring levels of arsenic at the base.

In 2007, one soil sample (SS08-0.5) showed an exceedance of the SCTL for leachability to groundwater for chromium. Chromium was detected at levels well below the Groundwater Cleanup Target Level (GCTL) in all of the groundwater samples collected during confirmatory sampling events. Additionally, per “operator knowledge,” there is no known source of chromium for this site. Therefore, the leachability exceedance of chromium detected in surface soil at MPT-AOCE-SS08 was not further addressed in subsequent sampling events.

The AOC E site assessment findings of geology, hydrogeology, and nature and extent of contamination support the conclusion that the soils are not contaminated, and there is a small area (approximately 0.04 acre) of arsenic-contaminated groundwater associated with AOC E. The data collected support a proposal for No Further Action using Risk Management Option (RMO) Level II, Option II D. The proposal would be submitted as detailed in Chapter 62-780, F.A.C., and RMO Level II is appropriate since there is no contamination (as defined by the FDEP) in soils and the area of groundwater contamination is less than 0.25 acre.

Tetra Tech recommends beginning a groundwater monitoring program for AOC E. The monitoring program should focus on ensuring the plume is defined and the concentrations are not increasing. Once the monitoring program has shown the groundwater plume is stable or shrinking the site should be considered for closure under RMO II.

REFERENCES

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APPENDIX A

FEBRUARY 8, 2010, TETRA TECH EMAIL SUMMARIZING THE 2009 RFI/CMS WORK PLAN

McCann, Rick

From: Roof, Gregory
Sent: Tuesday, November 22, 2011 9:11 AM
To: McCann, Rick
Subject: FW: Revised Sampling Strategy for AOC E RFI
Attachments: CSR sampling results.pdf

From: Roof, Gregory
Sent: Monday, February 08, 2010 9:08 AM
To: 'Winters, John'; Claggett, Libby; Brian Syme (brian.syme1@navy.mil); Diane Racine (diane.racine@navy.mil); Robbie Darby (robbie.darby@navy.mil)
Cc: Siefken, David
Subject: Revised Sampling Strategy for AOC E RFI

All,

Per our conversation at the last partnering team meeting, we plan to alter the proposed sampling strategy from the RFI work plan to what is described in this email. This proposed effort replaces the sampling for Phase I of the investigation described in the RFI work plan. Additional follow on sampling will also be performed to complete the delineation as required. The partnering team will be presented the follow on proposed activities prior to field work.

As reported in the RFI Work Plan the samples collected during the Confirmatory Sampling (CS) were analyzed for a full Appendix IX suite of parameters. The CS effort identified only arsenic in groundwater and TRPH in soil as COCs for exceeding their respective CTLS. The RFI work plan focused on these for the sampling effort. TtNUS proposes to alter our work plan to incorporate the following in lieu of our original approach.

Total Recoverable Petroleum Hydrocarbons – TRPH was the only constituent detected above regulatory criteria in the soil samples collected prior to this RFI. TRPH concentrations in 5 locations exceeded SCTLs (see attached figures). Groundwater samples were collected in 3 of the 5 locations. All results were non-detect for TRPH in groundwater. The RFI work plan proposed a delineation effort using the TRPH by FL PRO method. The proposed changes for addressing these TRPH exceedances are

1. Resample the surface soil at the five locations and analyze for speciated TRPH by the MADEP method.
2. Install soil borings at each of the previous detections.
3. Using a FID analyze soil samples at approximately 2-foot intervals to the water table.
4. Collect a subsurface soil sample at the location of the highest FID reading or, if there are no FID detections, the lowest unsaturated soil sample closest to the water table. We will analyze the subsurface soil sample by FL PRO and MADEP methods.
5. Install a well at each location and analyze the groundwater sample for TRPH by FL PRO.

Arsenic – Although arsenic was not detected in the soil at concentrations exceeding the NAVSTA Mayport background concentration, it was detected in groundwater at 2 locations. To help manage costs during the confirmatory sampling effort these wells were installed by hand and did not have proper sand packs. As such the arsenic investigation will begin with installing two new wells and collecting groundwater samples for arsenic to verify the previous results. Also to better understand the regional groundwater flow direction TtNUS will install up to 4 piezometers at the perimeter of the site per the work plan.

As stated above the sampling proposed in the original Phase I of the work plan is being replaced by the activities above. Phase 2 and other follow on sampling will be based on the results of this sampling effort. The

work plan will not be altered. TtNUS will include this email correspondence in the RFI report to detail the changes to the work plan.

This email is intended to provide the proposed changes and achieve consensus for the deviation from the work plan. Please review this information and email me back regarding your approval of the proposed changes. If you need to discuss the approach, please contact me.

Thanks for your help in completing this task. Once approved we will begin field mobilization.

Regards,
Greg

Gregory S. Roof, P.E.
Senior Project Engineer

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Direct Line: 904.730.4669 ext 215 │Main 904.636.6125 │FAX: 904.636.6165 │ Cell: 904.955.2122

Gregory.Roof@tetratech.com │ (www.tetratech.com)

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APPENDIX B

FIELD FORMS

EVENT 1

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: MPT-AOCE
Project No.:

Sample ID No.: MPT. AOCE - SS01 - 0.5
Sample Location: SS01
Sampled By: DS
C.O.C. No.:

[X] Surface Soil (SS)
[ ] Subsurface Soil (SU)
[ ] Sediment (SD)
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5.16.07 Time: 1445 Method: Monitor Reading (ppm): 0	0 - 0.5	Dk Brown	Fine Sand Shell hash

COMPOSITE SAMPLE DATA:

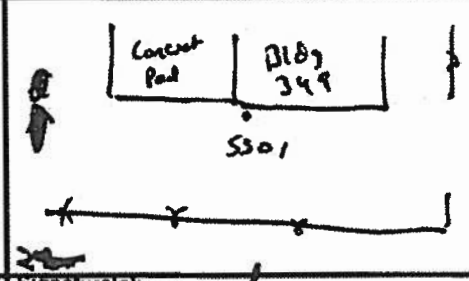
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: MPT - AOC E
Project No.:

Sample ID No.: MPT-AOC E-SS02-0.5
Sample Location: SS02
Sampled By: DS MY
C.O.C. No.:

[X] Surface Soil (SS)
[ ] Subsurface Soil (SU)
[ ] Sediment (SD)
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-16-07 Time: 1430 Method: Grab Monitor Reading (ppm): 0	0-0.5	Lt Brown	limerock, Dry

COMPOSITE SAMPLE DATA:

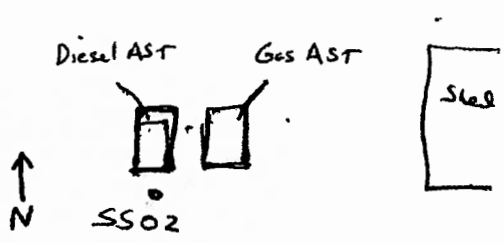
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260 VOA	(3) vials	Yes	Katahdin
8 RCRA	2 oz		
Semi Volatile	4 oz		
Herb, Pest, PCB, TRPH	8 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: MPT- AOC-E
Project No.:

[X] Surface Soil (SS)
[] Subsurface Soil (SU)
[] Sediment (SD)
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE-SS07-03
Sample Location: SS07
Sampled By: DS MY
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5.16.07 Time: 1415 Method: Monitor Reading (ppm): 0	0-0.5	Brown	Fine Sand Dry

COMPOSITE SAMPLE DATA:

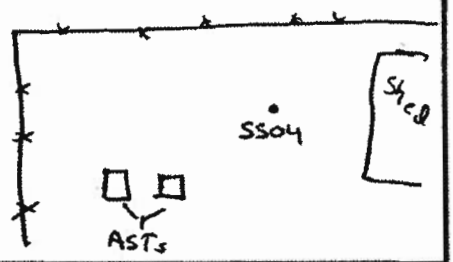
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260 VOC	(3) 40ml Vials	Yes	Katahdin
8 RCRA METALS	2 oz	↓	↓
Semi Volatiles	4 oz		
Herb, Pest, PCB, TRPH	8 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: MPT- AOC- E
Project No.:

Sample ID No.: MPT-AOC-E-SS06-0.5
Sample Location: SS06
Sampled By: DS MY
C.O.C. No.:

[X] Surface Soil (SS)
[ ] Subsurface Soil (SU)
[ ] Sediment (SD)
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-16-07 Time: 1400 Method: Grab Monitor Reading (ppm): 0	0-0.5	Dk Grey	Fine Sand.

COMPOSITE SAMPLE DATA:

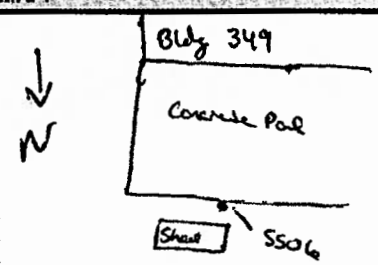
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260 VOC	(3) 40ml vial	Yes	Katahdin
8 RCRA Metals	2 oz	↓	↓
Semi VOA	4 oz	↓	↓
Herb, Pest, PCB. TRPH	8 oz	↓	↓

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): RP

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: MPT - AOCE
Project No.:

Sample ID No.: MPT-AOCE-SS12-0.5
Sample Location: SS12
Sampled By: DS MY
C.O.C. No.:

[X] Surface Soil (SS)
[ ] Subsurface Soil (SU)
[ ] Sediment (SD)
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5.16.07 Time: 1340 Method: Monitor Reading (ppm):	0 - 0.5	Lt Brown	fine sand, shells Dry

COMPOSITE SAMPLE DATA:

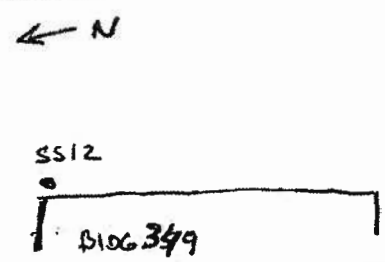
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260 VOC	3 40ml Vial	Yes	Katahdin
8 RCRA	2 oz		
Semi-VOA	4 oz		
Herb, Pest, PCB, TRPH	8 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: MPT . AOCE . SS08 - 0.5
Project No.:

[] Surface Soil (SS)
[] Subsurface Soil (SU)
[] Sediment (SD)
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE SS08 . 0.5
Sample Location: SS08
Sampled By: DS MY
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-16-07 Time: 1325 Method: Monitor Reading (ppm):	0 - 0.5	Greyish Brown	Sand, Fine Sands, Dry

COMPOSITE SAMPLE DATA:

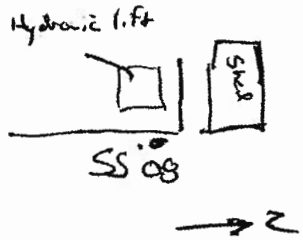
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260	(3) 40ml vials	Yes	Retained
8-RCRA	2 oz		
Semi VOA	4 oz		
Herb, Pest, PCB, TRPH	8 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: MPT - AOC - E
Project No.:

[X] Surface Soil (SS)
[] Subsurface Soil (SU)
[] Sediment (SD)
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE-SS03-0.5
Sample Location: SS03
Sampled By: DS MY
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-16-07 Time: 1310 Method: Monitor Reading (ppm): 0	0-0.5	Grey	Fine Sand, Dry

COMPOSITE SAMPLE DATA:

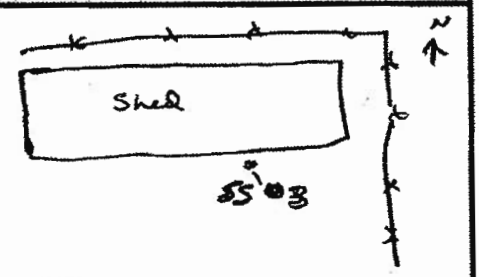
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260 VOC	(3) 40 ml Vial	Yes	Katahdin
8 RCRA	2 oz		
Semi VOA	4 oz		
Herb, Pest, PCB, TRPH	8 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): RDL

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: MDT-AOC E-SS11-0.5
Project No.:

[✓] Surface Soil (SS)
[] Subsurface Soil (SU)
[] Sediment (SD)
[] Other:
[] QA Sample Type:

Sample ID No.: MDT-AOC E SS11-0.5
Sample Location: SS11
Sampled By: DS
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-16-07 Time: 1255 Method: Monitor Reading (ppm): 0	0-0.5	Gray	fine sand, Dry

COMPOSITE SAMPLE DATA:

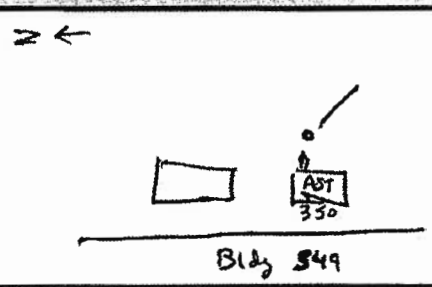
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260 VOC	(3) Vials	Yes	Katahdin
8 RCRA	2 oz		
Semi VOA	4 oz		
Herb, Pest, PCB, TRPH	8 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: MPT- AOC - E
Project No.:

[X] Surface Soil (SS)
[] Subsurface Soil (SU)
[] Sediment (SD)
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE SS10- 0.5
Sample Location: SS10
Sampled By: DS MY
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-16-07 Time: 1240 Method: Monitor Reading (ppm): 0	0 - 0.5 ft	Gray	Fine sand + organics dry

COMPOSITE SAMPLE DATA:

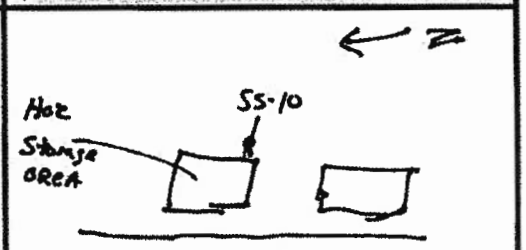
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
8260- VOC	3 - 40ml Vials	Yes	Katahdin
8- RCRA	2 oz		
Semi VOA	4 oz		
Herb, Pest, PCB, TRPH	8 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: MPT-AOC-E
Project No.:

[X] Surface Soil (SS)
[] Subsurface Soil (SU)
[] Sediment (SD)
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE-SS04-0.5
Sample Location: SS04
Sampled By: DS + MY
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-16-07 Time: 1210 Method: GRAB Monitor Reading (ppm): 0	0-.5 ft	Grey	Dry fine Sand. dry

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

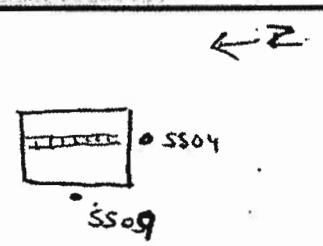
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
3 - Vials 40ml	VOC	X	Katahdin
2 oz	8-RCRA		
4 oz	Semi Vol		
8 oz	Herb, Pest, PCB, TRPH		

OBSERVATIONS / NOTES:

No petro odors

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): RLS

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: MAYPORT	SITE LOCATION: SITE AOC-E	
WELL NO: PZ-02	SAMPLE ID: MPT-AOC-E- PZ	DATE: 5-17-07

PURGING DATA

WELL DIAMETER (in): 1"	TOTAL WELL DEPTH (ft): 8.5	STATIC DEPTH TO WATER (ft): 5.80	WELL CAPACITY (gal/ft): .04

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
_____ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.5	PURGING INITIATED AT: 1045	PURGING ENDED AT: 1115	TOTAL VOLUME PURGED (Liters): 7.5

TIME	VOLUME PURGED (gal) ℓ	CUMUL. VOLUME PURGED (gal) ℓ	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	COND. (µmhos)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR
1045	0	0	250	6.04							
1105	5 ℓ	5	250	6.13	7.45	23.82	344	7.51	3.62	cl	—
1110			250	6.14	7.43	23.81	344	7.71	3.55	cl	—
1115	2.5	7.5	250	6.14	7.41	23.	344	7.68	3.42	cl	—
1115	SAMPLE										

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Mark Yarbrough / Dave Siefken	SAMPLER(S) SIGNATURES	SAMPLING INITIATED AT: 1115	SAMPLING ENDED AT: 1140
PUMP OR TUBING DEPTH IN WELL (feet): 6.5	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
	3	CG	40 ml	HCL	40 ml	< 2	VOCs 8260	SM
	2	AG	1L	--	1 L	N/A	Semi-Volatiles 8270+ PAH SIM	VT
	2	AG	1L	HCL	1L	< 2	TRPH	VT
	2	AG	1L	---	1L	N/A	Herbicide -8151	VT
	2	AG	1 L	___	1L	N/A	Pesticide/ PCB 8081/8082	VT
	1	P	500 ml	HNO3	500 ml	< 2	8- RCRA Metals 6010+ 7470	pp

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: MAYPORT MPT-AOCE	SITE LOCATION: SITE AOC-E
WELL NO: PZ- MPT-AOCE-PZ01	SAMPLE ID: MPT-AOC-E- PZ
DATE: 5-17-07	

PURGING DATA

WELL DIAMETER (in): 1"	TOTAL WELL DEPTH (ft): 8'	STATIC DEPTH TO WATER (ft): 5.98	WELL CAPACITY (gal/ft): .04

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) _____ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) _____ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	PURGING INITIATED AT: 1140	PURGING ENDED AT: 1214	TOTAL VOLUME PURGED (Liters): 12.85

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	COND. (µmhos)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR	
1205	2.5	2.5	.10	5.96	7.20	22.13	547	3.68	7.2	clear	N/D	4.7
1208	.30	2.8	.10	5.96	7.20	22.13	546	3.65	6.3	↓	↓	4.5
1211	.30	3.1	.10	5.96	7.22	22.13	546	3.66	6.0			5.0
1214	.30	3.4	.10	5.96	7.20	22.14	545	3.68	5.0			5.1

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Mark Yarbrough Dave Sickler	SAMPLER(S) SIGNATURES [signature]	SAMPLING INITIATED AT: 1215	SAMPLING ENDED AT: 1240
PUMP OR TUBING DEPTH IN WELL (feet): 6.5	SAMPLE PUMP FLOW RATE (mL per minute): 514	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
	3	CG	40 ml	HCL	40 ml		VOCs 8260	SM
	2	AG	1L	--	1 L		Semi-Volatiles 8270+ PAH SIM	VT
	2	AG	1L	HCL	1L		TRPH	VT
	2	AG	1L	---	1L		Herbicide -8151	VT
	2	AG	1 L	___	1L		Pesticide/ PCB 8081/8082	VT
	1	P	500 ml	HNO3	500 ml		8- RCRA Metals 6010+ 7470	pp

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS/FDEP Groundwater Sampling Sheet

SITE NAME: MAYPORT	SITE LOCATION: SITE AOC-E
WELL NO: PZ- 03	SAMPLE ID: MPT-AOC-E- PZ 03 / DATE: 5/17/07

PURGING DATA

WELL DIAMETER (in): 1"	TOTAL WELL DEPTH (ft): 8	STATIC DEPTH TO WATER (ft): 5.56	WELL CAPACITY (gal/ft): .04

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.2	PURGING INITIATED AT: 1245	PURGING ENDED AT: 1309	TOTAL VOLUME PURGED (Liters): 3.4 gal / 12.85 L

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	COND. (µmhos)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR	ORP
1300	2.5	2.5	.10	5.58	6.78	23.55	8.46	4.95	4.3	Clear	N/D	16.3
1303	.30	2.8	.10	5.58	6.78	23.55	850	4.98	4.0	↓	↓	15.0
1306	.30	3.1	.10	5.58	6.78	23.55	850	4.94	3.8			
1309	.30	3.4	.10	5.58	6.78	23.55	850	4.92	3.8			

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Mark Yarbrough	SAMPLER(S) SIGNATURES: Mark Y-L	SAMPLING INITIATED AT: 1310	SAMPLING ENDED AT: 1350
PUMP OR TUBING DEPTH IN WELL (feet): 6.2	SAMPLE PUMP FLOW RATE (mL per minute): 514	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
	3	CG	40 ml	HCL	40 ml	<2	VOCs 8260	SM
	2	AG	1L	--	1 L	N/A	Semi-Volatiles 8270+ PAH SIM	VT
	2	AG	1L	HCL	1L	<2	TRPH	VT
	2	AG	1L	---	1L	N/A	Herbicide -8151	VT
	2	AG	1 L	___	1L	N/A	Pesticide/ PCB 8081/8082	VT
	1	P	500 ml	HNO3	500 ml	<2	8- RCRA Metals 6010+ 7470	pp

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: MAYPORT	SITE LOCATION: SITE AOC-E	
WELL NO: PZ-04	SAMPLE ID: MPT-AOC-E- PZ 04	DATE: 5-17-07

PURGING DATA

WELL DIAMETER (in): 1.25	TOTAL WELL DEPTH (ft): ~8.5	STATIC DEPTH TO WATER (ft): 5.12	WELL CAPACITY (gal/ft): .04

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
_____ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	PURGING INITIATED AT: 0910	PURGING ENDED AT: 0940	TOTAL VOLUME PURGED (Liters): 7.5

TIME	VOLUME PURGED (gal) l	CUMUL. VOLUME PURGED (gal) l	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	COND. (µmhos)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR
0910	0	0	250	5.12							
0930	5 l	5	250	↓	7.02	21.70	x889	4.56	27.09	CL	–
0935			250		7.02	21.69	887	4.46	7.69	CL	–
0940	7.5 l	7.5	250	↓	7.00	21.69	889	4.62	3.86	CL	–
0940	Sample										

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Dave Siefken	SAMPLER(S) SIGNATURES	SAMPLING INITIATED AT: 0940	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 6.5	SAMPLE PUMP FLOW RATE (mL per minute): 250	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
	3	CG	40 ml	HCL	40 ml		VOCs 8260	SM
	2	AG	1L	--	1 L		Semi-Volatiles 8270+ PAH SIM	VT
	2	AG	1L	HCL	1L		TRPH	VT
	2	AG	1L	---	1L		Herbicide -8151	VT
	2	AG	1 L	___	1L		Pesticide/ PCB 8081/8082	VT
	1	P	500 ml	HNO3	500 ml		8- RCRA Metals 6010+ 7470	pp

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: MAYPORT	SITE LOCATION: SITE AOC-E
WELL NO: PZ- 05	SAMPLE ID: MPT-AOC-E- PZ	DATE: 5-17-07

PURGING DATA

WELL DIAMETER (in): 1"	TOTAL WELL DEPTH (ft): 8	STATIC DEPTH TO WATER (ft): 5.98	WELL CAPACITY (gal/ft): .04

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

_____ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

_____ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	PURGING INITIATED AT: 1350	PURGING ENDED AT: 1424	TOTAL VOLUME PURGED (Liters): 3.4 gal/12.85

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	COND. (µmhos)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR	orp
1415	2.5	2.5	.10	6.01	6.99	22.69	1031	3.98	3.2	clear	N/D	4.6
1418	.30	2.8	↓	6.01	7.00	22.69	1031	4.00	4.2	↓	↓	4.5
1421	.30	3.1		6.01	7.00	22.69	1030	3.98	3.2			4.4
1424	.30	3.4		6.01	6.99	22.69	1030	3.96	3.2			4.2
								~~3.96~~				

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Mark Yarbrough	SAMPLER(S) SIGNATURES Mark Yarbrough	SAMPLING INITIATED AT: 1425	SAMPLING ENDED AT: 1455
PUMP OR TUBING DEPTH IN WELL (feet): 6.5	SAMPLE PUMP FLOW RATE (mL per minute): 514	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
	3	CG	40 ml	HCL	40 ml	< 2	VOCs 8260	SM
	2	AG	1L	--	1 L	N/A	Semi-Volatiles 8270+ PAH SIM	VT
	2	AG	1L	HCL	1L	< 2	TRPH	VT
	2	AG	1L	---	1L	N/A	Herbicide -8151	VT
	2	AG	1 L	___	1L	N/A	Pesticide/ PCB 8081/8082	VT
	1	P	500 ml	HNO3	500 ml	< 2	8- RCRA Metals 6010+ 7470	pp

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: MAYPORT	SITE LOCATION: SITE AOC-E	
WELL NO: PZ- 06	SAMPLE ID: MPT-AOC-E- PZ	DATE: 5 .18-07

PURGING DATA

WELL DIAMETER (in): 1"	TOTAL WELL DEPTH (ft): 8'	STATIC DEPTH TO WATER (ft): 5.98	WELL CAPACITY (gal/ft): .04

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
_____ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.5	PURGING INITIATED AT: 0825	PURGING ENDED AT: 0859	TOTAL VOLUME PURGED (Liters):

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	COND. (µmhos)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR	ORP
0850	2.5	2.5	.10	6.03	6.97	22.70	620	4.03	3.8	Clear	N/D	4.7
0853	.30	2.8	↓	6.03	6.98	22.69	622	4.04	4.1	↓	↓	4.4
0856	.30	3.1	↓	6.03	6.98	22.69	621	4.01	3.7	↓	↓	4.1
0859	.30	3.4	↓	6.03	6.97	22.70	622	4.02	3.7	↓	↓	3.8

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Mark Y	SAMPLER(S) SIGNATURES [signature]	SAMPLING INITIATED AT: 0900	SAMPLING ENDED AT: 0940
PUMP OR TUBING DEPTH IN WELL (feet): 6.5	SAMPLE PUMP FLOW RATE (mL per minute): 514	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
	3	CG	40 ml	HCL	40 ml	< 2	VOCs 8260	SM
	2	AG	1L	--	1 L	N/A	Semi-Volatiles 8270+ PAH SIM	VT
	2	AG	1L	HCL	1L	< 2	TRPH	VT
	2	AG	1L	---	1L	N/A	Herbicide -8151	VT
	2	AG	1 L	___	1L	N/A	Pesticide/ PCB 8081/8082	VT
	1	P	500 ml	HNO3	500 ml	<2	8- RCRA Metals 6010+ 7470	pp

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

CTO 88 112G00871 AOC-E - SOIL SAMPLING/WELL INSTALL 3-1-10 [1]

PERSONNEL: K. WEICHERT (KW), D. HARDISON (DH), - TENUS
- PREFERRED DRILLING: DAN RICHARS (DR), LANCE CHANEY (LC)
CHRIS BURGER (CB)

TRUCK: 2001 F-250
PPE: LEVEL "D"
WEATHER: COOL (50° F), CLEAR, SUNNY
EQUIPMENT: DPT, FID, HAND AUGER, GW LEVEL INDICATOR
OBJECTIVE: - COLLECT SOIL SAMPLES AND CONDUCT FID SCREENING.
- INSTALL 7 MONITORING WELLS @ AOC-E
- DEVELOP WELLS

0630 KW + DH @ TENUS OFFICE PREPARING FOR TODAY'S WORK
0800 KW + DH DEPART FOR NAVSTA MAYPORT, WILL STOP FOR ICE ON THE WAY.
0900 KW + DH AT CORNER OF A1A AND WONDERWOOD TO MEET DRILLERS FOR ESCORT ONTO NAVSTA MAYPORT
0920 DRILLERS ARRIVE, ENTIRE CREW HEADS TO CONTRACTOR GATE
1030 CHECK IN COMPLETE, CREW HEADS TO AOC-E
1035 SITE HEALTH + SAFETY MEETING CONDUCTED, BEGIN UNLOADING AND CALIBRATING EQUIPMENT. - SEE FIELD CALIBRATION LOG AND HEALTH + SAFETY FORMS FOR DETAILS
1100 CREW BEGINS FIRST SOIL BORING

ID - LOCATION 006

MPT-AOCE-SS006 0.5-030110 - SAMPLE - TIME: 1110

FID READINGS	UNFILTERED	FILTERED
0'-2' -	0.0 ppm	—
2'-4' -	0.0 ppm	-

- WATER TABLE @ 4.5'

MPT-AOCE-SB006-04-030110 - SAMPLE - TIME: 1123

1125 - BEGIN INSTALLING WELL @ SOIL SAMPLE LOCATION 006
MW-~~001~~ KW - MPT-AOCE-MW~~001~~ KW - ~~14'~~ BOTTOM DEPTH: ~~13' 10"~~ KW 13.23'

ID - LOCATION 008

MPT-AOCE-SS008-0.5-030110 - SAMPLE TIME: 1208

FID READINGS	UNFILTERED	FILTERED
0'-02'-	0.0 ppm	—
02'-04'-	0.0 ppm	-

WATER TABLE @ 4.5'

MPT-AOCE-SB008-04-030110 - SAMPLE TIME 1215
1215 - BEGIN WELL INSTALLATION
- MW02 - MPT-AOCE-MW02 - BOTTOM DEPTH 14' KW 13.64'

[1]

CTO 88 112600871 AOC-E - SOIL SAMPLING/WELL INSTALL 3-1-10

1240 LOCATION - PZ04

- NO SOIL SAMPLING / SCREENING - WELL INSTALLATION ONLY
- MPT-AOCE-MW03 - DEPTH - ~~14.1~~ 13.81' KW - H_2O DEPTH : 5.06'

LOCATION - 010

- MPT-AOCE-SS010-0.5-030110 - TIME: 1300 - MS/MSD COLLECTED

FID READINGS	UNFILTERED	FILTERED
-00'-02'-	0.0 ppm	-
-02'-04'-	0.0 ppm	-

- MOISTURE @ 4.5'

- MPT-AOCE-SB010-04-030110- TIME: 1305

1311- BEGIN WELL INSTALLATION

MW-04 - MPT-AOCE-MW04 - DEPTH ~~13.7~~ KW 13.39'

1330 - JAP-HILL WORKERS ON SITE TO CUT HOLE IN CONCRETE SLAB OVER LOCATION 002

LOCATION - AOCE-002

- MPT-AOCE-SS002-0.5-030110 - 1405 TIME

FID READINGS -	UNFILTERED	FILTERED
-00'-02'	0.0ppm	
-02'-04'	0.0 ppm	

- MPT-AOCE-SB002-04-030110- TIME: 1410

1415 - WELL INSTALL - MPT-AOCE-MW05 - DEPTH: 14.14

LOCATION - AOCE-001

- MPT-AOCE-SS001-0.5-030110 - TIME: 1430

FID READINGS	UNFILTERED	FILTERED
-00'-02'	0.0 ppm	
-02'-04'	0.0 ppm	

~~-BEGIN WELL INSTALL~~ KW

- MPT-AOCE-SB001-04-030110 TIME 1435

1440 - BEGIN WELL INSTALL

- MPT-AOCE-MW-06 - DEPTH: 13.87'

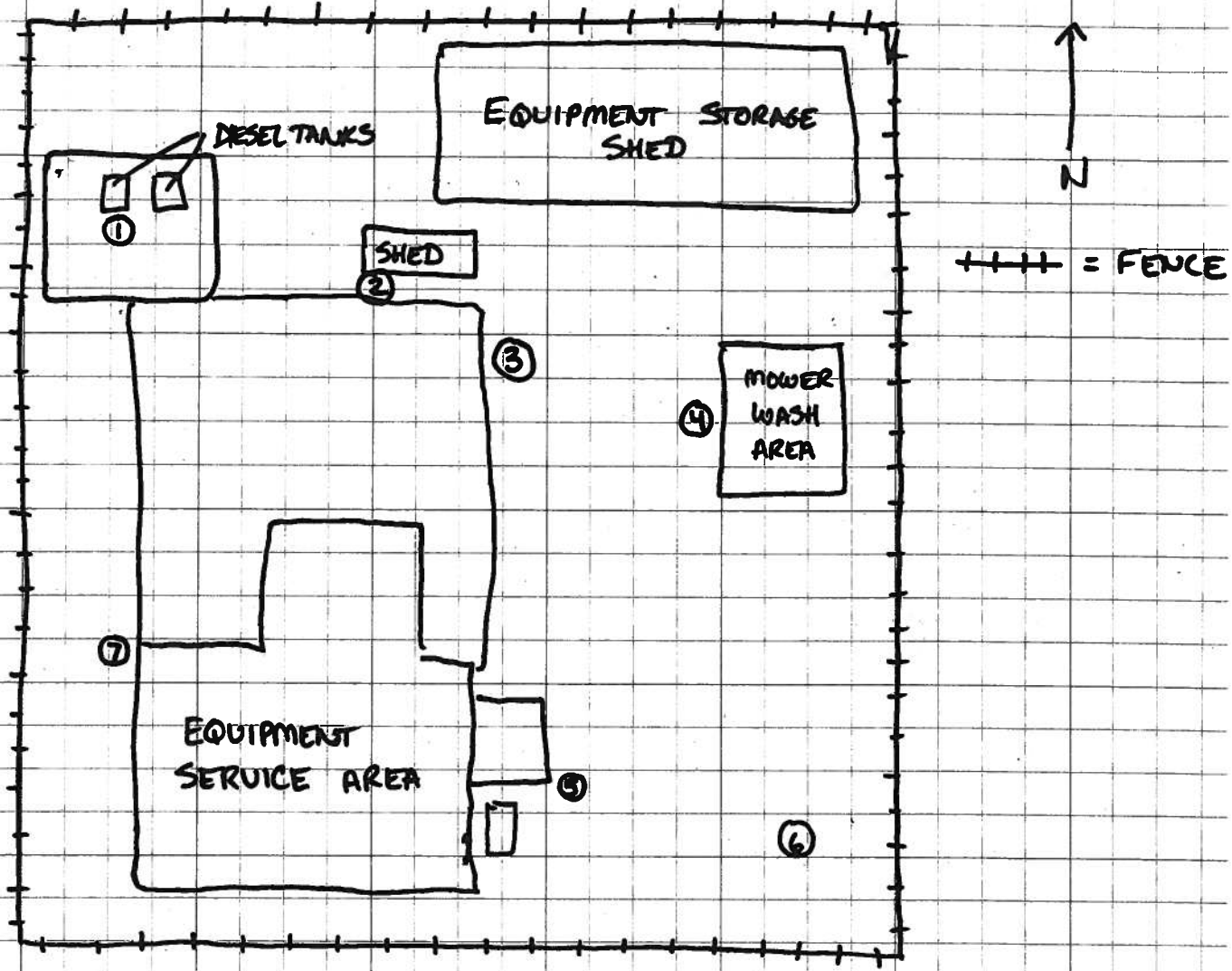
1450 BEGIN WELL INSTALL AT PZ05

- NO SOIL SAMPLING/SCREENING
- MPT-AOCE-MW07 - DEPTH : 13.94

- SEE MAP FOR ALL SOIL SAMPLE AND WELL LOCATIONS ON NEXT PAGE

K. Hill

CTO 88 112G00871 AOC-E- SOIL SAMP/WELL INSTALLS 3-1-10



1 - SOIL SAMPLES COLLECTED:
- MPT-AOCE-SS002-0.5-030110
- MPT-AOCE-SB002-04-030110
- MONITORING WELL MPT-AOCE-MW05 INSTALLED

2 - SOIL SAMPLES COLLECTED
- MPT-AOCE-SS006-0.5-030110
- MPT-AOCE-SB006-04-030110
- MONITORING WELL MPT-AOCE-MW01 INSTALLED

3 - SOIL SAMPLES COLLECTED
- MPT-AOCE-SS008-0.5-030110
- MPT-AOCE-SB008-04-030110
- MONITORING WELL MPT-AOCE-MW02 INSTALLED

4 - MONITORING WELL MPT-AOCE-MW03 INSTALLED

5 - SOIL SAMPLES COLLECTED
- MPT-AOCE-SS010-0.5-030110
- MPT-AOCE-SB010-04-030110
- MONITORING WELL MPT-AOCE-MW 04 INSTALLED

⑥ - ~~SOIL~~ MW MONITORING WELL MPT-AOCE-MW-07 INSTALLED
⑦ - SOIL SAMPLES COLLECTED
- MPT-AOCE-SS001-0.5-030110
- MPT-AOCE-SB001-04-030110
- MONITORING WELL MPT-AOCE-MW06 INSTALLED
* SEE SOIL SAMPLE LOG SHEETS, AND MW INSTALLATION SHEETS FOR DETAILS
* SOIL ANALYZED FOR TRPHs + SPECIATED TRPHs
1530 - KW, DH, PR, LC, CB SECURE AND LEAVE SITE
1600 - KW + DH @ TENUS - BEGIN PACKING SAMPLES
- TRPH - FL-PRO SAMPLES SHIPPED TO EMPIRICAL LABS
- SPECIATED TRPHs TO BE PICKED UP BY ACCUTEST COURIER TOMORROW AT TENUS OFFICE.

KPW

CTO 88 112600871 AOC-E- WELL INSTALL 3-2-10

PERSONNEL: K. WEICHERT (KW), P. JOHNSON (PJ), C. BURGER (CB), L. CHANEY (LC), D. RICHARDS

TRUCK: 2001 F-250

PPE: LEVEL "D"

WEATHER: COOL 55° - RAINY.

OBJECTIVE: FINISH WELL PADS/ COMPLETION AND DEVELOPMENT @ AOC-E, INSTALL PIEZOMETERS

0545 KW AT TENUS OFFICE LOADING EQUIPMENT

0700 KW MEETS DRILLERS AT CONTRACTOR GATE

0720 KW, LC, DR, ON SITE, BEGIN DEVELOPING WELLS DURING HEAVY RAIN - SEE TABLE BELOW FOR DETAILS

WELL ID	START	STOP	VOLUME	NOTES
MPT-AOCE-MW01	0752	0820	5 GAL	- PURGED UNTIL CLEAR
MPT-AOCE-MW02	0843	0904	5 GAL	
MPT-AOCE-MW03	0910	0943	5 GAL	
MPT-AOCE-MW04	1036	1049	5 GAL	
MPT-AOCE-MW05	0725	0746	5 GAL	
MPT-AOCE-MW06	1100	1115	5 GAL	
MPT-AOCE-MW07	1015	1035	4 GAL	- Purged until clear

* ALL DEVELOPMENT H_2O IN DRUM AOCE-001

0800 - RAIN STOPS - PETE JOHNSON (PJ) ON SITE

0810 - BEGIN PIEZOMETER INSTALLATION

0843 - PZ-02 INSTALLED - CB ON SITE
- 7 FEET BELOW GS, 3' STICKUP

0900 - PZ-01 INSTALLED
- 9 FEET BELOW SURFACE 1' STICKUP

0930 - PZ-03 INSTALLED - ~~CB + PJ~~ KW
- 9 FEET BELOW SURFACE - 1' STICKUP

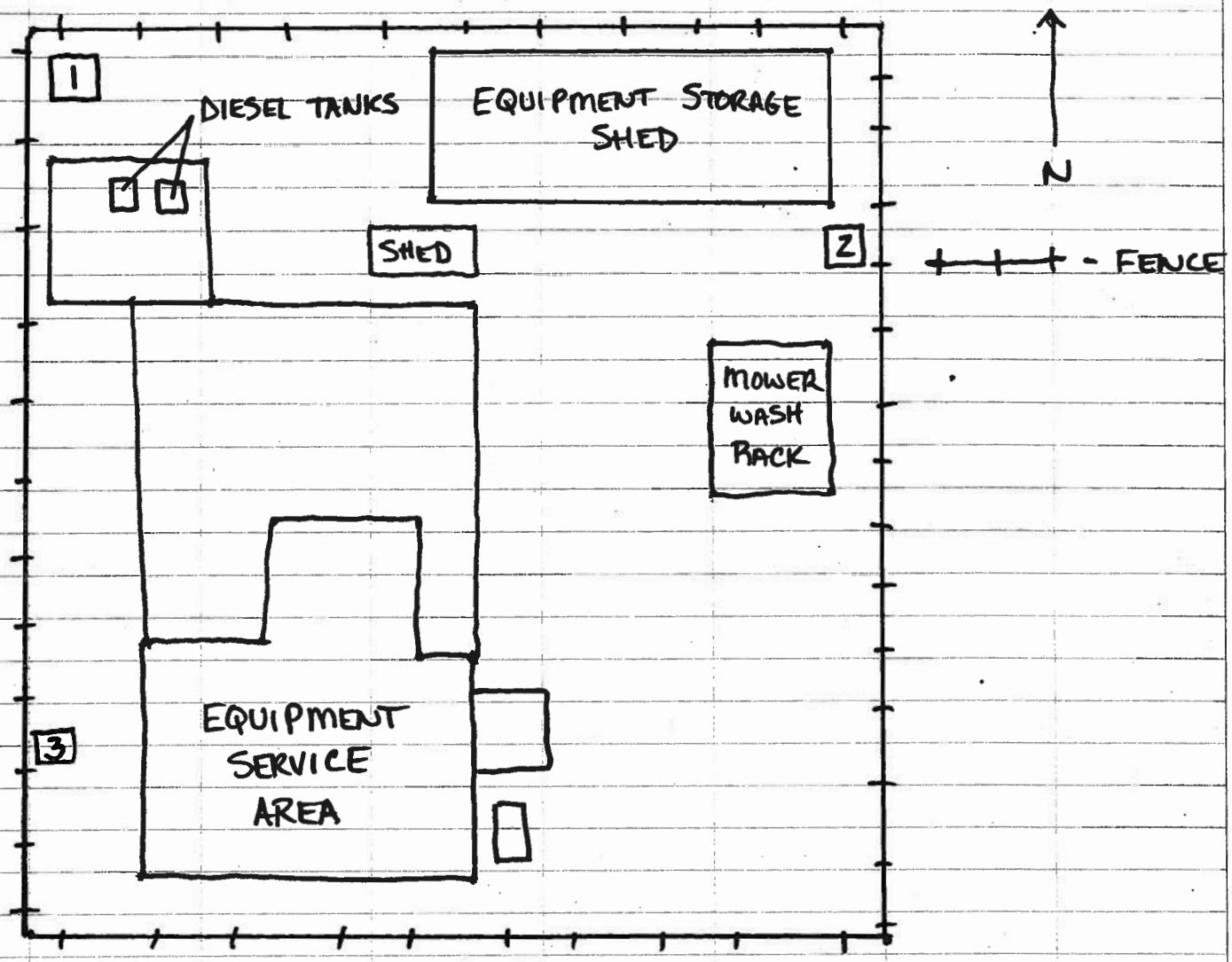
1000 - CREW STILL FINISHING UP CONCRETE PADS ON MONITORING WELLS

1035 - MONITORING WELLS COMPLETED - KW, PJ, CB, LC, DR, SECURE AND LEAVE SITE.

- SEE MAP ON FOLLOWING PAGE FOR PIEZOMETER LOCATIONS

Rite in the Rain ALL-WEATHER WRITING PAPER

CTO 88 112G00871 AOCE - WELL INSTALLATIONS 3-2-10



1 - MPT-AOCE-PZ-01
2 - MPT-AOCE-PZ-02
3 - MPT-AOCE-PZ-03

KPW

CTO 88 112G00871 AOC-E-GW 3-4-10

PERSONNEL: K. WEICHERT, D. HARDISON (DH)
TRUCK: 2006 F-250 LIFT GATE
PPE: LEVEL "D"
WEATHER: COLD (40°), PARTLY CLOUDY, WINDY
OBJECTIVE: COLLECT A ROUND OF GW LEVELS, SURVEY PIEZOMETERS RELATIVE TO MW WELLS, REMOVE PIEZOMETERS

0815 - KW + DH @ TENUS OFFICE LOADING EQUIPMENT
0825 - KW + DH DEPART FOR NAVSTA MAYPORT
0900 - KW + DH ON SITE, BEGIN UNCAPPING WELLS
0935 - KW + DH BEGIN COLLECTING GW LEVEL MEASUREMENTS - SEE TABLE BELOW + GW LEVEL MSMT. SHEET FOR DETAILS

WELL I.D.	TIME	DEPTH TO WATER	TOTAL DEPTH
MPT-AOCE-PZ01	0950	8.14'	-
MPT-AOCE-PZ02	0957	5.69'	-
MPT-AOCE-PZ03	0953	6.66'	-
MPT-AOCE-MW01	0949	5.56'	13.23'
MPT-AOCE-MW02	0954	5.54'	13.64'
MPT-AOCE-MW03	0955	5.04'	13.81'
MPT-AOCE-MW04	0956	5.93'	13.39'
MPT-AOCE-MW05	0951	6.71'	14.14'
MPT-AOCE-MW06	0953	5.97'	13.87'
MPT-AOCE-MW07	0959	5.77'	13.94

1000 - KW + DH BEGIN COLLECTING TOP OF CASING SURVEY MEASUREMENTS
- AS A REFERENCE, ALL SURVEY VALUES WERE COMPARED TO MW-01 FOR FUTURE USE SINCE PIEZOMETERS ARE TO BE REMOVED. SEE TABLE BELOW FOR DETAILS

WELL I.D.	SURVEY READING	RELATIVE FEET ABOVE (+) OR BELOW (-) TO MW-01
PZ-01	3.41	+2.58
PZ-02	5.88	+0.89
PZ-03	4.91	+1.08
MW-01	5.99	0.0
MW-02	6.04	-0.05
MW-03	6.55	-0.56
MW-04	-	- UNABLE TO SPOT FROM SCOPE POINT
MW-05	4.85	+1.14
MW-06	5.60	+0.39
MW-07	5.77	+0.22

CTO 88 112600871 NAVSTA MAYPORT: AOC-E 3-4-10

1035 KW + DH LOAD UP DRUM # AOC-E-001 AND TRANSPORT TO DRUM STORAGE AREA.

DRUM INFO

ID: AOCE-001

CONTENTS: DEVELOPMENT H_2O

VOLUME: 35 gallons

1100 KW + DH DEPART FOR TENUS OFFICE

KDW

CTO 88 112G00871 AOC-E-GW. SAMPLING 3-8-10

PERSONNEL: K. WEICHERT (KW)
TRUCK: 2001 F-250
PPE: LEVEL "D"
WEATHER: COOL (50°), CLEAR, SUNNY
OBJECTIVE: COLLECT GW SAMPLES AT SEVEN MONITORING WELLS AT AOC-E

0630 KW AT TENUS OFFICE LOADING EQUIPMENT
0700 KW DEPARTS FOR NAVSTA MAYPORT
0735 KW AT AOC-E AT NAVSTA MAYPORT - BEGINS CALIBRATING EQUIPMENT -
- SEE FIELD CALIBRATION LOG SHEET FOR DETAILS
0800 KW BEGINS SETTING UP AND SAMPLING WELLS - SEE TABLE BELOW FOR DETAILS

WELL #	SAMPLE ID	START PURGE	END PURGE	SAMPLE TIME	ANALYSES
MW-05	MPT-AOCE-GW-MW05-030810	0813	0838	0840	TRPH
MW-01	MPT-AOCE-GW-MW01-030810	0857	0929	0930	TRPH
MW-06	MPT-AOCE-GW-MW06-030810	0945	1012	1015	TRPH *
MW-02	MPT-AOCE-GW-MW02-030810	1046	1117	1118	TRPH
MW-04	MPT-AOCE-GW-MW04-030810	1137	1208	1210	TRPH
MW-07	MPT-AOCE-GW-MW07-030810	1223	1250	1252	ARSENIC
—	MPT-AOCE-RB01-030810 (RINSATE)	—	—	1305	ARSENIC
MW-03	MPT-AOCE-GW-MW03-030810	1300	1324	1325	ARSENIC

* MS/MSD COLLECTED ON MW-06
- ALL SAMPLES PUT ON ICE AND COOLED TO 4°C

1330 KW BEGINS LOADING UP EQUIPMENT
1400 KW LEAVES SITE - SITE SECURE - KW HEADS TO NAVFAC OFFICE TO PICK UP DRUM STORAGE KEY.
1410 KEY IN HAND, KW HEADS TO DRUM STORAGE AREA
1420 KW EMPTIES PURGE H_2O INTO DRUM # AOCE-00
- CONTENTS: DEVELOPMENT + PURGE H_2O
- VOLUME: 45 GALLONS
1430 KW HEADS BACK TO NAVFAC OFFICE
1445 KEY RETURNED, KW DEPARTS NAVSTA MAYPORT FOR TENUS OFFICE.

KPW

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 0966 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00871	NAVSTA MAYPORT	GREG ROOF	904-636-6125	ACCUTEST - HEATHER
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
K. Weichert		KEVIN WEICHERT	904-636-6125	4405 VINELAND ROAD SUITE C-15
		CARRIER/WAYBILL NUMBER		CITY, STATE
		COURRIER PICK UP		ORLANDO, FL

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: – MeOH

TYPE OF ANALYSIS

DATE YEAR 2000	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	BMAEPHR-	VMAUPHR-5035	VMAUPHR-5035					COMMENTS
03/01	1110	MPT-AOCE-SS006-0.5-030110				SO	G		1	1	2					-COOL TO 4°C
	1123	MPT-AOCE-SB006-04-030110				SO	G		1	1	2					
	1208	MPT-AOCE-SS008-0.5-030110				SO	G		1	1	2					
	1215	MPT-AOCE-SB008-04-030110				SO	G		1	1	2					
	1300	MPT-AOCE-SS010-0.5-030110				SO	G		3	3	6					-MS/MSD
	1305	MPT-AOCE-SB010-04-030110				SO	G		1	1	2					
	1405	MPT-AOCE-SS002-0.5-030110				SO	G		1	1	2					
	1410	MPT-AOCE-SB002-04-030110				SO	G		1	1	2					
	1430	MPT-AOCE-SS001-0.5-030110				SO	G		1	1	2					
	1435	MPT-AOCE-SB001-04-030110				SO	G		1	1	2					
																48 hr. hold times
		-TEMPBLANK														

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY K. Weichert	3-2-10		1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 0967 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G.00871	NAUSTA: MAY PORT	GREG BODE	904-636-6125	EMPIRICAL LABS
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
K. WLH		KEVIN WEICHERT	904-636-6125	621 MAINSTREAM DR. SUITE 270
		CARRIER/WAYBILL NUMBER		CITY, STATE
				NASHVILLE, TN

STANDARD TAT ☑
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: -
TYPE OF ANALYSIS: TRPH- FL-PRO

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	COMMENTS
3/1	1110	MPT-AOCE-SS006-0.5-030110				SO	G	1	-COOL TO 4°C
	1123	MPT-AOCE-SB006-04-030110				SO	G	1	
	1208	MPT-AOCE-SS008-0.5-030110				SO	C	1	
	1215	MPT-AOCE-SB008-04-030110				SO	G	1	
	1300	MPT-AOCE-SS010-0.5-030110				SO	G	3	-MS/MSD
	1305	MPT-AOCE-SB010-04-030110				SO	G	1	
	1405	MPT-AOCE-SS002-0.5-030110				SO	G	1	
	1410	MPT-AOCE-SB002-04-030110				SO	G	1	
	1430	MPT-AOCE-SB001-0.5-030110				SO	G	1	
	1435	MPT-AOCE-SB001-04-030110				SO	G	1	
		TEMP BLANK							

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY K. WLH	3-1-10	1730	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 0968 | PAGE ____ OF _____

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00871	NAUSTA: MAYPORT	GREG ROOF	904-636-6125	ACCUTEST
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
K. Wilt		KEVIN WEICHERT	904-636-6125	4405 VINELAND RD. SUITE C-15
		CARRIER/WAYBILL NUMBER		CITY, STATE
		COURRIER PICK UP		ORLANDO, FL, 32811

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: H_2SO_4
TYPE OF ANALYSIS: TRPH- FL-PRO

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TRPH- FL-PRO							COMMENTS
3/8	0840	MPT-AOCE-GW-MW05-030810				GW	G	2	2							-COOL TO 4°C
3/8	0930	MPT-AOCE-GW-MW01-030810				GW	G	2	2							
3/8	1015	MPT-AOCE-GW-MW06-030810				GW	G	6	6							-MS/MSD
3/8	1118	MPT-AOCE-GW-MW02-030810				GW	G	2	2							
3/8	1210	MPT-AOCE-GW-MW04-030810				GW	G	2	2							

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY K. Wilt	3-9-10	1207	1. RECEIVED BY [illegible]	3-9-10	1208
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 0958

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00871	NAVSTA: MAYPORT	GREG ROOF	904-636-6125	EMPIRICAL LABS
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
K. Wilt		KEVIN WEICHERT	904-636-6125	621 MAINSTREAM DR, SUITE 270
		CARRIER/WAYBILL NUMBER		CITY, STATE
		7933-3564-3660		NASHVILLE, TN, 37228

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P

PRESERVATIVE USED: HNO3

TYPE OF ANALYSIS: METALS - ARSENIC

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS								COMMENTS
3/8	1252	MPT-AOCE-GW-MW07-030810				GW	G	1	1							COOL TO 4°C
3/8	1305	MPT-AOCE-RB01-030810				QC	G	1	1							RINSATE
3/8	1325	MPT-AOCE-GW-MW03-030810				GW	G	1	1							

1. RELINQUISHED BY K. Wilt	DATE 3-9-10	TIME 1000	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : MPT- AOC-E

SITE NAME: AOCE

PROJECT No.: 112G00871

INSTRUMENT NAME/MODEL: YSI 556 / MICROTRW

MANUFACTURER: YSI / HF SCIENTIFIC

SERIAL NUMBER: 07B1599 / 200812227

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
3/8/10	07B1599	KW	pH	4.00	3.81	4.00	–	–
				7.00	7.01	7.00	–	–
				10.00	10.67	10.00	–	–
			CONDUCTIVITY	1.409	1.175	1.409	–	–
			ORP	240.0	243.6	240.0	09L100475	exp. 11/2011
			DO	100.0%	104.1%	100.0%		
3/8/10	200812227	KW	turb.	1000	–	1000	90104	exp JULY 2010
				10.0	–	10.0	90142	exp JULY 2010
				0.02	–	0.02	90101	exp JULY 2010

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : AOC-E

INSTRUMENT NAME/MODEL: PHOTOVAC MICROFID

SITE NAME: AOC-E

MANUFACTURER: PHOTOVAC

PROJECT No.: 117G00871

SERIAL NUMBER: CZDC212

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
3-1-10	CZDC212	KW/DH	METHANE	500ppm		497.4ppm	08-35324	exp. 9/17/10
				0 ppm		0 ppm		

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of___

Project Site Name: MPT- ACCE
Project No.: 112G00871

Sample ID No.: MPT-ACCE-SS006-0.5-030110
Sample Location: MPT-ACCE-006
Sampled By: LW/DH
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1110 Method: GRAB Monitor Reading (ppm): 0	0.0-0.5'	BROWN	SAND

COMPOSITE SAMPLE DATA:

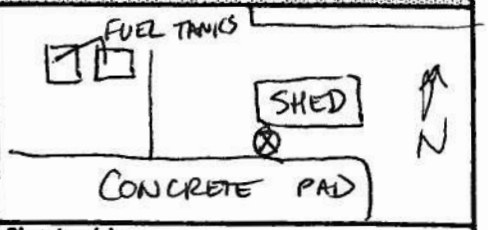
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH - FL-PRO	1 4oz JAR	✓	
SPECIATED TRPH	1 4oz, 3 40mL	✓	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K. Wilt

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of___

Project Site Name: MPT- AOCE
Project No.: 112G00871

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE-SB006-04-030110
Sample Location: AOCE-006
Sampled By: KW/DH
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1123 Method: GRAB Monitor Reading (ppm): 0	02'-04'	LT BROWN	SAND

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

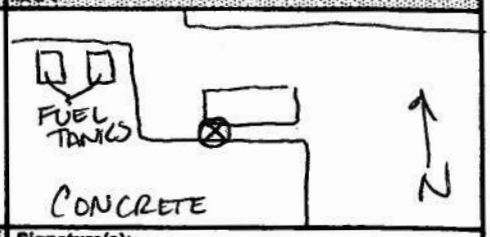
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH- FL-PRO	1 4oz JAR	✓	
SPECIATED TRPHS	1 4oz JAR, 3 40mL	✓	

OBSERVATIONS / NOTES:

- WATER TABLE SATURATION @ 4.5', SO SAMPLE COLLECTED IN 2'-4' INTERVAL

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K. Wilt

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: MPT- AOC-E
Project No.: 112G00871

Sample ID No.: MPT-AOCE-SS008-0.5-030110
Sample Location: AOCE- 008
Sampled By: KW / DH
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1208 Method: GRAB Monitor Reading (ppm): 0	0.0 - 0.5'	BROWN	SAND

COMPOSITE SAMPLE DATA:

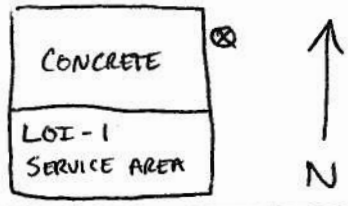
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH- FL-PRO	1 4oz JAR	✓	
SPECIATED TRPHS	1 4oz JAR, / 3 40mL	✓	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K. Wilt

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: MPT - AOC-E
Project No.: 112G00871

[] Surface Soil
[✓] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE-SB008-04-030110
Sample Location: AOCE-008
Sampled By: KW / DH
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1215 Method: GRAB Monitor Reading (ppm): 0	02'-04'	LT BROWN	SAND

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH-FL-PRO	1 4oz JAR	✓	
SPECIATED TRPHs	1 4oz JAR / 3 40mL	✓	

OBSERVATIONS / NOTES:

WATER TABLE SATURATION JUST BELOW 4', THEREFORE THE 2'-4' INTERVAL WAS SAMPLED

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K. Will

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: MPT- AOC-E
Project No.: 112G0D871

Sample ID No.: MPT-AOCE-SS01D-0.5-030110
Sample Location: AOCE-01D
Sampled By: KW/DH
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1300 Method: GRAB Monitor Reading (ppm): 0	0.0' - 0.5'	BROWN	SAND

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH- EL-PRO	1 4oz JAR	✓	MS/MSD
SPECIATED TRPH	1 4oz JAR / 3 40mL	✓	MS/MSD

OBSERVATIONS / NOTES:

- MS/MSD COLLECTED

MAP:

Circle if applicable:

MS/MSD

Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: MPT- AOC-E
Project No.: 112600871

Sample ID No.: MPT-AOCE-SB01D-04-030110
Sample Location: AOCE-01D
Sampled By: KW / DH
C.O.C. No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1305 Method: GRAB Monitor Reading (ppm): 0	02' - 04'	LT. BROWN	SAND

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH- EL-PRO	1 4oz JAR	✓	
SPECIATED TRPH	1 4oz JAR / 3 40mL	✓	

OBSERVATIONS / NOTES:

- WATER TABLE SATURATION JUST BELOW 4', THEREFORE 2'-4' INTERVAL WAS SAMPLED.

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K-Wilt

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of___

Project Site Name: MPT - AOC-E
Project No.: 112G00871

Sample ID No.: MPT-AOCE-SS002-0.5-030110
Sample Location: AOCE-002
Sampled By: KW/DH
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1405 Method: GRAB Monitor Reading (ppm): 0	0.0' - 0.5'	BROWN	SAND

COMPOSITE SAMPLE DATA:

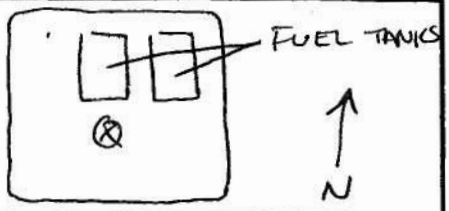
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH - FL-PRO	1 4oz JAR	✓	
SPECIATED TRPH	1 4oz JAR / 3 40mL	✓	

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K. Walt

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of___

Project Site Name: MPT- AOC-E
Project No.: 112G00871

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: MPT-AOCE-SB002-04-030110
Sample Location: AOCE-002
Sampled By: KW/DH
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1410 Method: GRAB Monitor Reading (ppm): 0	02'-04'	LT. BROWN	SAND

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

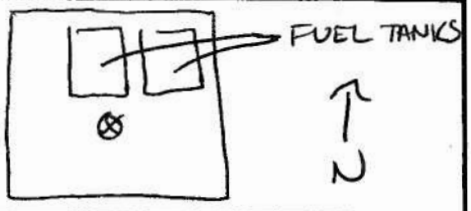
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH- FL-PRO	1 4oz JAR	✓	
SPECIATED TRPH	1 4oz JAR / 3 40ML	✓	

OBSERVATIONS / NOTES:

WATER TABLE SATURATION @ 4.5', THEREFORE 2'-4' INTERVAL WAS SAMPLED

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): KWH

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: MPT- AOC-E
Project No.: 112G00871

Sample ID No.: MPT-AOCE-SS001-0.5-030110
Sample Location: AOCE-001
Sampled By: KW / DH
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1430 Method: GRAB Monitor Reading (ppm): 0	0.0' - 0.5'	LT BROWN	SAND

COMPOSITE SAMPLE DATA:

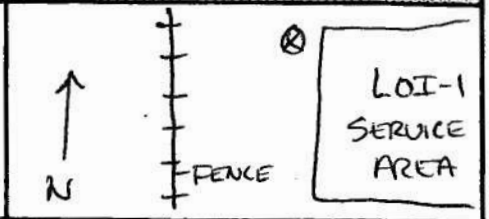
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH- FL-PRO	1 4oz JAR	✓	
SPECIATED TRPH	1 4oz JAR / 3 40mL	—	

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: MPT - AOCE
Project No.: 112G00871

Sample ID No.: MPT-AOCE-SB001-04-030110
Sample Location: AOCE-001
Sampled By: KW / DH
C.O.C. No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-1-10 Time: 1435 Method: GRAB Monitor Reading (ppm): 0	02'-04'	LT BROWN	COCINA (TINY SHELL FRAGMENTS)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

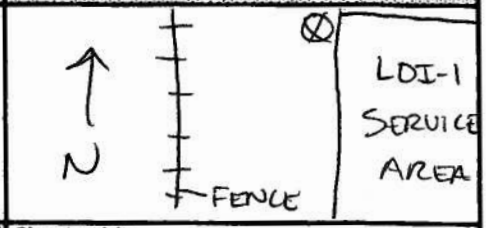
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TRPH- EL-PRO	1 4oz JAR	✓	
SPECIATED TRPH	1 4oz JAR / 3 40mL	✓	

OBSERVATIONS / NOTES:

WATER TABLE SATURATION JUST BELOW 4', THEREFORE 02'-04' INTERVAL SAMPLED

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K-WLT

Naval Station Mayport Investigative Derived Waste Drum Log

Contractor Company Name: TETRA TECH

Individual Name: KEVIN WEICHERT

Location Name: AOC-E
(i.e. SWMU number, Bldg number)

Date of generation: MARCH 2, 2010

Expected date of results: _____

Drum Number: __various (See Table Below for additional info.)_____
(Use site # and unique drum number)

Drum No.	Type of Waste (i.e. drill cuttings, purge water)	Quantity of Waste (gals/lbs)	Date	Individual's Initials/ Name
001	DEVELOPMENT H_2O	35 gal	3-2-10	KW

Enclosure (1)

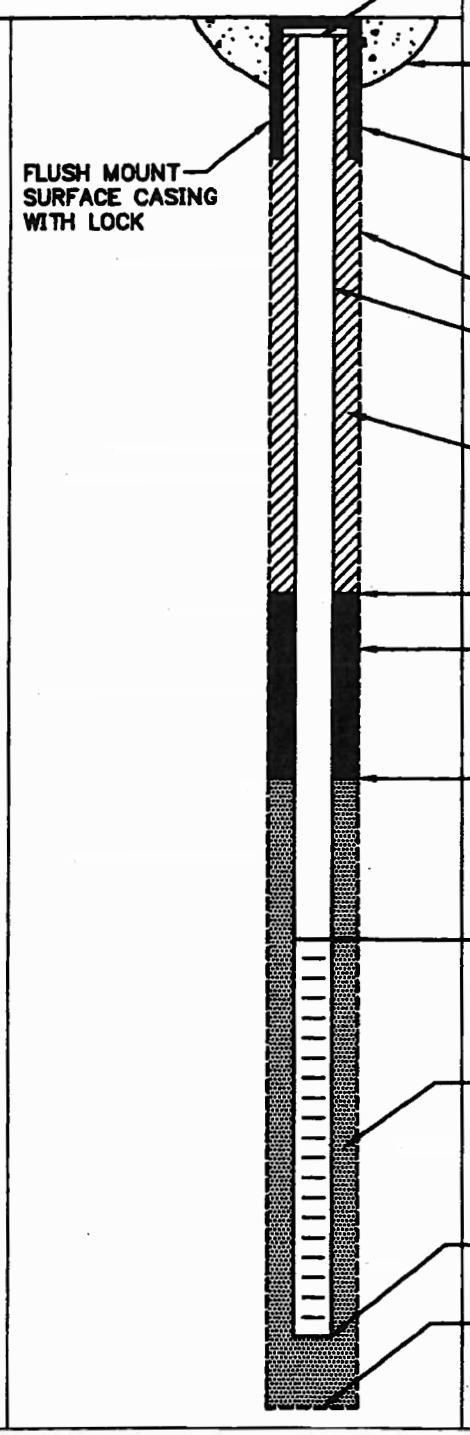
Revised 1/24/2006

WELL NO.: MW-01

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MPT- AOC-E	LOCATION AOC-E	DRILLER PREFERRED
PROJECT NO. 112G00871	BORING	DRILLING METHOD DPT
DATE BEGUN 3-1-10	DATE COMPLETED 3-1-10	
FIELD GEOLOGIST DONALD HARDISON / K. WEICHERT		DEVELOPMENT METHOD PERISTALTIC PUMP
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 0.2'/

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 2.2'/

ELEVATION/DEPTH TOP OF SCREEN: 3.2'/

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10 / 10'

TYPE OF SAND PACK: 20/40 PRE PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 13.2'/

ELEVATION / DEPTH BOTTOM OF SAND: 13.2'/

ELEVATION/DEPTH BOTTOM OF HOLE: 13.2'/

BACKFILL MATERIAL BELOW SAND:

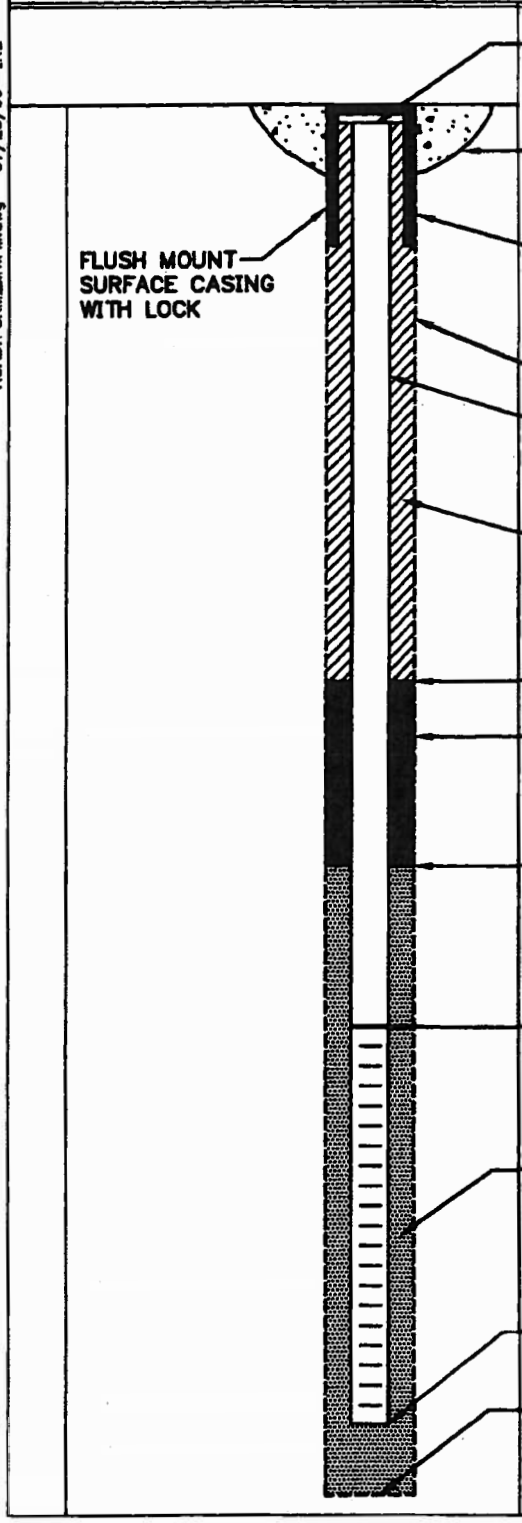
ACAD:FORM_MWFM.dwg 07/28/99 INL

WELL NO.: MW-02

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MPT- AOC-E	LOCATION AOCE- MAYPORT	DRILLER PREFERRED
PROJECT NO. 112G00871	BORING	DRILLING METHOD DPT
DATE BEGUN 3-1-10	DATE COMPLETED 3-1-10	DEVELOPMENT METHOD PERISTALTIC PUMP
FIELD GEOLOGIST DONALD HARDISON / K. WEICHERT		
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 0.6'/

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 2.6'/

ELEVATION/DEPTH TOP OF SCREEN: 3.6'/

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10 / 10'

TYPE OF SAND PACK: 20/40 PRE-PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 13.6'/

ELEVATION / DEPTH BOTTOM OF SAND: 13.6'/

ELEVATION/DEPTH BOTTOM OF HOLE: 13.6'/

BACKFILL MATERIAL BELOW SAND:

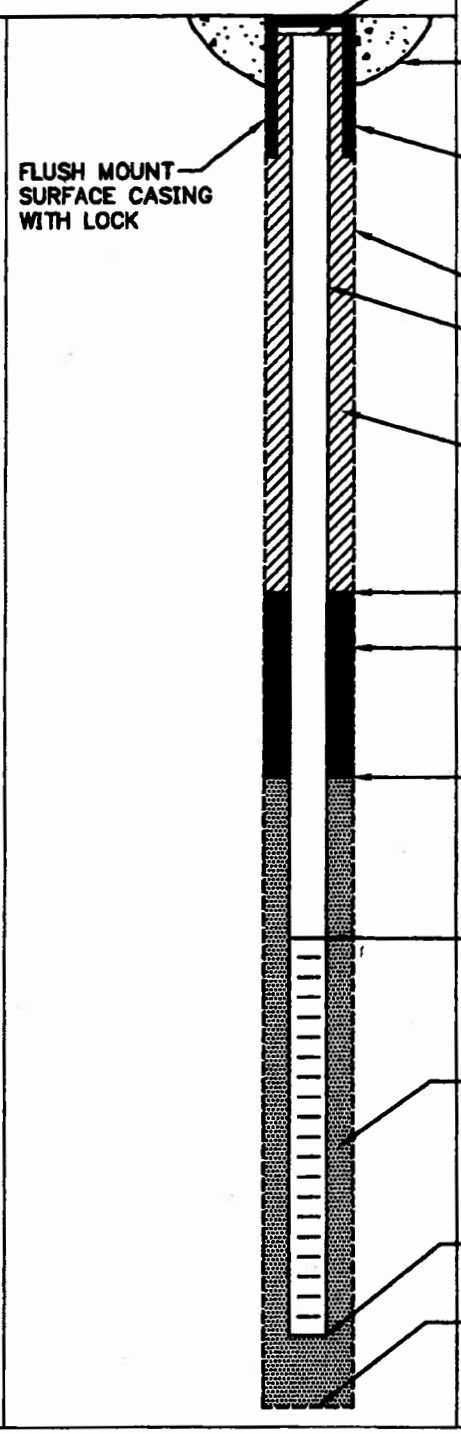
ACAD:FORM_MWFM.dwg 07/28/99 INL

WELL NO.: MW-03

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MPT- AOC E	LOCATION AOC-E- MAYPORT	DRILLER PREFERRED
PROJECT NO. 112G00871	BORING	DRILLING METHOD DPT
DATE BEGUN 3-1-10	DATE COMPLETED 3-1-10	
FIELD GEOLOGIST DONALD HARDISON/ KEVIN WEICHERT		DEVELOPMENT METHOD PERISTALTIC PUMP
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 0.8'/

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 2.8'/

ELEVATION/DEPTH TOP OF SCREEN: 3.8'/

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10 / 10'

TYPE OF SAND PACK: 20/40 PRE-PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 13.8'/

ELEVATION / DEPTH BOTTOM OF SAND: 13.8'/

ELEVATION/DEPTH BOTTOM OF HOLE: 13.8'/

BACKFILL MATERIAL BELOW SAND:

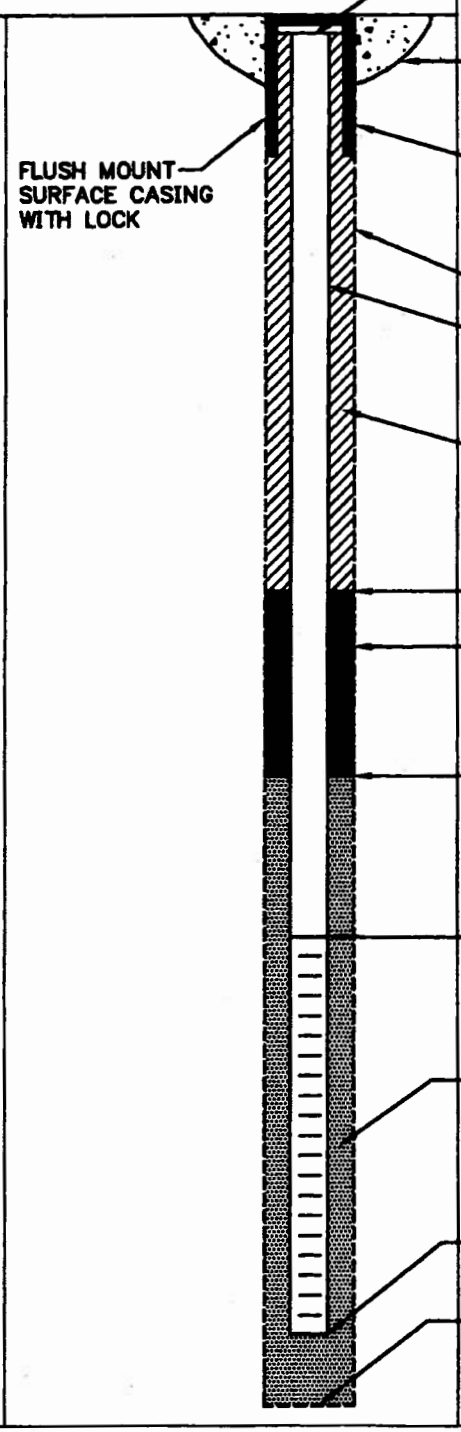
ACAD:FORM_MWFM.dwg 07/28/99 INL

WELL NO.: MW-04

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MPT- AOCE	LOCATION MAYPORT- AOCE	DRILLER PREFERRED
PROJECT NO. 112G00871	BORING	DRILLING METHOD DPT
DATE BEGUN 3-1-10	DATE COMPLETED 3-1-10	
FIELD GEOLOGIST D. HARDISON / K. WEICHERT		DEVELOPMENT METHOD PERISTALTIC
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 0.4'/

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 2.4'/

ELEVATION/DEPTH TOP OF SCREEN: 3.4'/

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10 / 10'

TYPE OF SAND PACK: 20/40 PRE PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 13.4'/

ELEVATION / DEPTH BOTTOM OF SAND: 13.4'/

ELEVATION/DEPTH BOTTOM OF HOLE: 13.4'/

BACKFILL MATERIAL BELOW SAND:

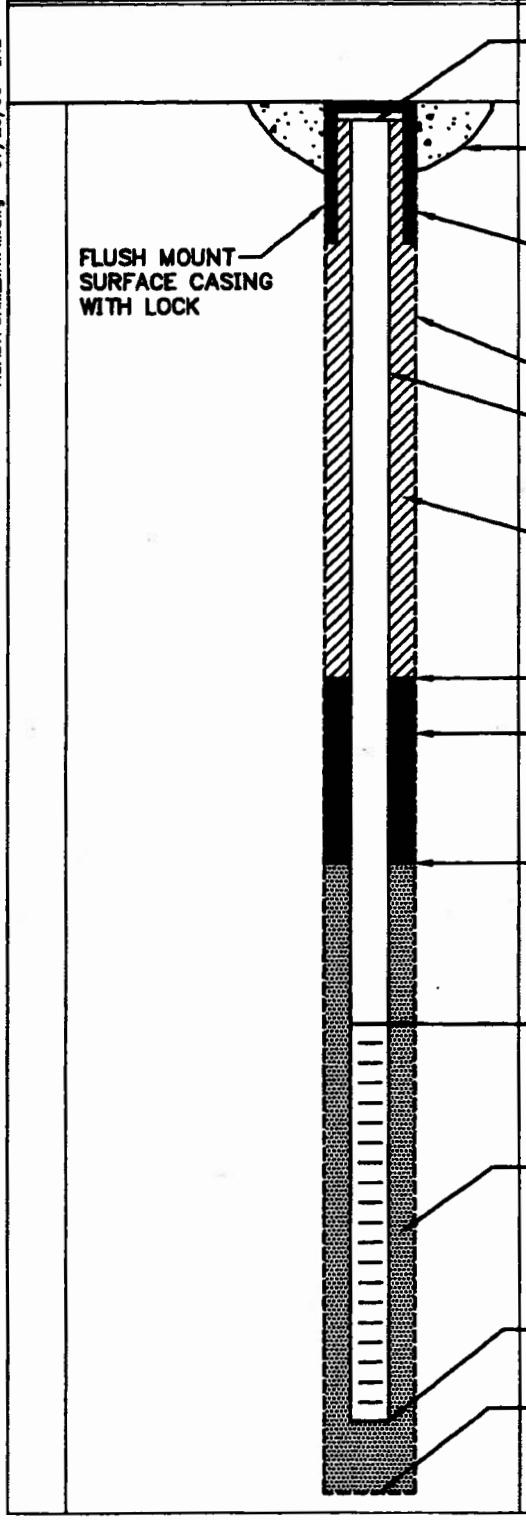
ACAD:FORM_MWFM.dwg 07/28/99 TNL

WELL NO.: MW-05

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MDT-AOCE	LOCATION MAYPORT - AOC-E	DRILLER PREFERRED
PROJECT NO. 112G00871	BORING	DRILLING METHOD DPT
DATE BEGUN 3-1-10	DATE COMPLETED 3-1-10	
FIELD GEOLOGIST D. HARDISON / K. WEICHERT		DEVELOPMENT METHOD PERISTALTIC PUMP
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 1.1'/

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 3.1'/

ELEVATION/DEPTH TOP OF SCREEN: 4.1'/

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10 / 10'

TYPE OF SAND PACK: 20/40 PRE PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 14.1'/

ELEVATION / DEPTH BOTTOM OF SAND: 14.1'/

ELEVATION/DEPTH BOTTOM OF HOLE: 14.1'/

BACKFILL MATERIAL BELOW SAND: _____

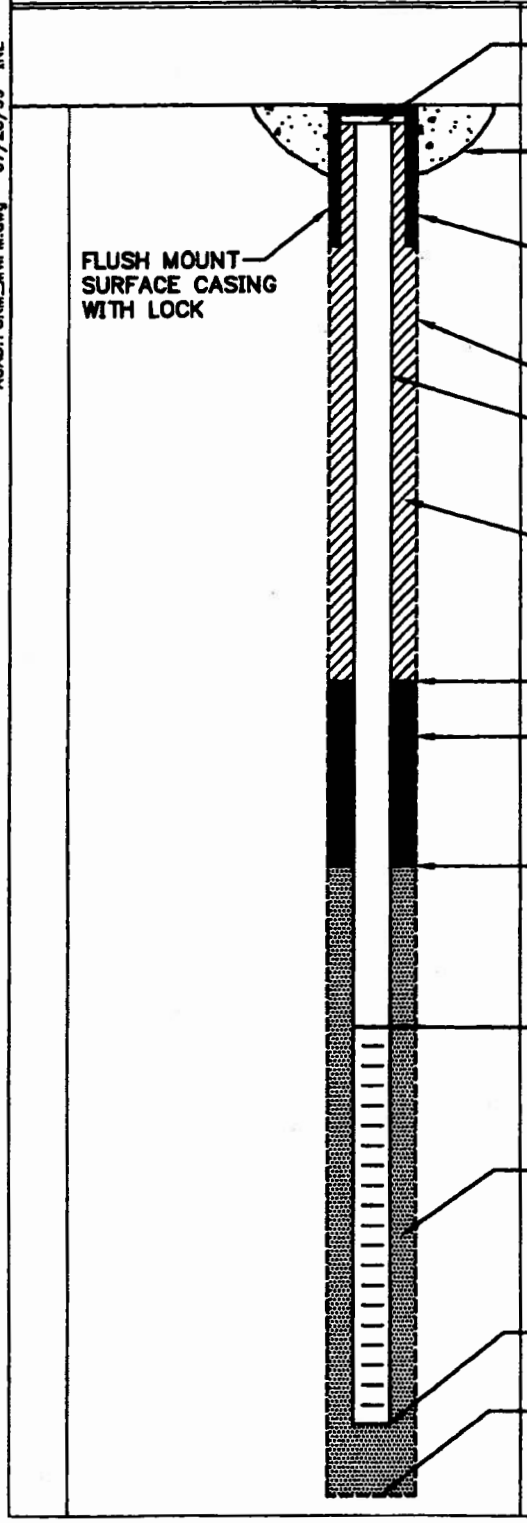
ACAD:FORM_MWFM.dwg 07/28/99 INL

WELL NO.: MW-06

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MPT- AOCE	LOCATION MAYPORT- AOCE	DRILLER PREFERRED
PROJECT NO. 112G00871	BORING	DRILLING METHOD DPT
DATE BEGUN 3-1-10	DATE COMPLETED 3-2-10	
FIELD GEOLOGIST D.HARDISON / K. WEICHERT		DEVELOPMENT METHOD PERISTALTIC PUMP
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 0.9'

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 2.9'

ELEVATION/DEPTH TOP OF SCREEN: 3.9'

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10 / 10'

TYPE OF SAND PACK: 20/40 PRE-PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 13.9'

ELEVATION / DEPTH BOTTOM OF SAND: 13.9'

ELEVATION/DEPTH BOTTOM OF HOLE: 13.9'

BACKFILL MATERIAL BELOW SAND:

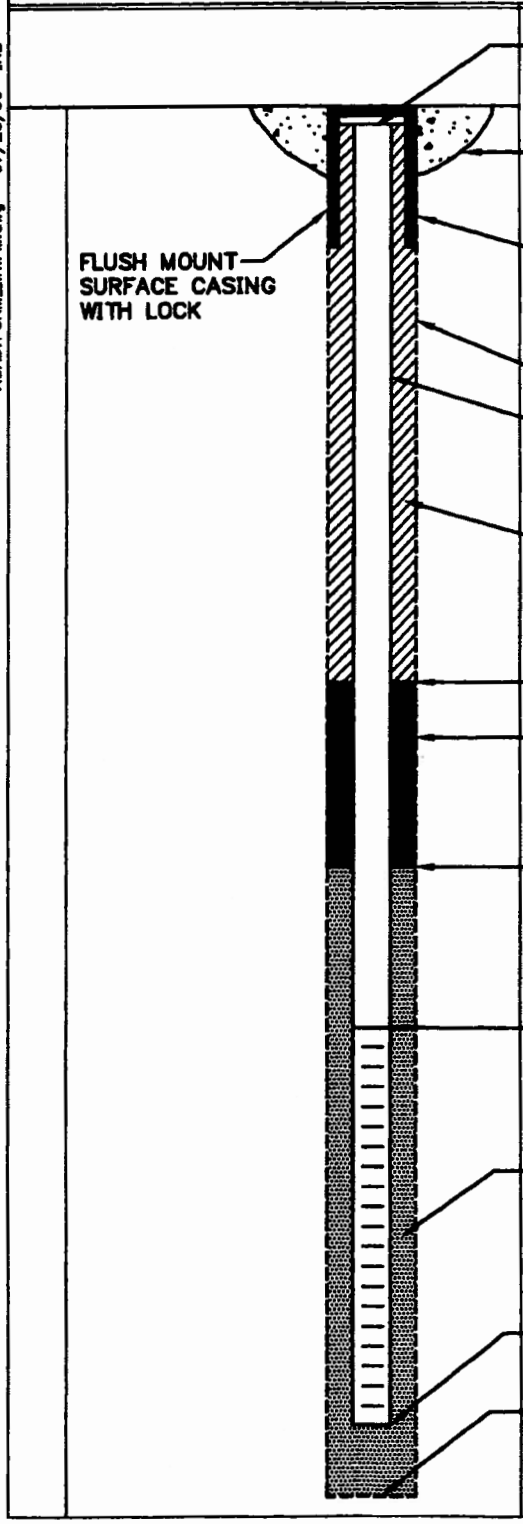
ACAD:FORM_MWFM.dwg 07/28/99 INL

WELL NO.: MW-07

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MPT- AOCE	LOCATION MAYPORT	DRILLER DREFERRED
PROJECT NO. 112G00871	BORING	DRILLING METHOD DRT
DATE BEGUN 3-1-10	DATE COMPLETED 3-2-10	DEVELOPMENT METHOD PERISTALTIC PUMP
FIELD GEOLOGIST D. HARDISON / K. WEICHERT		
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 0.9'/

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 2.9'/

ELEVATION/DEPTH TOP OF SCREEN: 3.9'/

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10 - 10'

TYPE OF SAND PACK: 20/40 PRE PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 13.9'/

ELEVATION / DEPTH BOTTOM OF SAND: 13.9'/

ELEVATION/DEPTH BOTTOM OF HOLE: 13.9'/

BACKFILL MATERIAL BELOW SAND:

ACAD:FORM_MWFM.dwg 07/28/99 INL

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: AOC-E **Project No.:** 112G00871
Location: NAVSTA MAYPORT **Personnel:** K. WEICHERT, D. HARDISON
Weather Conditions: COLD, 40°, PARTLY CLOUDY **Measuring Device:** HERON SKINNY DIPPER
Tidally Influenced: Yes X No ___ **Remarks:**

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
PZ-01	3/4/10	0950			8.14			
PZ-02		0957			5.69			
PZ-03		0953			6.66			
MW-01		0949		13.23	5.56			
MW-02		0954		13.64	5.54			
MW-03		0955		13.81	5.04			
MW-04		0956		13.39	5.93			
MW-05		0951		14.14	6.71			
MW-06		0953		13.87	5.97			
MW-07		0959		13.94	5.77			

* All measurements to the nearest 0.01 foot

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: AOC - E	SITE LOCATION: NAVSTA MAYPORT	
WELL NO: MW-01	SAMPLE ID: MPT-AOCE-GW-MW01-030810	DATE: 3-8-10

PURGING DATA

WELL DIAMETER (inches): 1.5	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 3.2 feet to 13.2 feet	STATIC DEPTH TO WATER (feet): 5.65	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
(13.2 - 5.65)(.16)(3.785 L/GAL) = 4.6 L | X5 = 23.0 L
_____Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.6	PURGING INITIATED AT: 0857	PURGING ENDED AT: 0929	TOTAL VOLUME PURGED (Liters): 9.6

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR / COLOR (describe)
0857	–	–	300	5.65	–	–	–	–	–	–	–
0913	4.8	4.8	300	5.65	7.35	17.29	0.733	0.40	39.03	-40.6	CLOUDY
0918	1.5	6.3	300	5.65	7.33	17.27	0.729	0.20	23.05	-35.6	CLEAR
0923	1.5	7.8	300	5.65	7.33	17.31	0.729	0.20	16.73	-35.0	CLEAR
0926	.9	8.7	300	5.66	7.33	17.33	0.729	0.19	16.04	-34.2	CLEAR
0929	.9	9.6	300	5.66	7.33	17.34	0.729	0.20	14.38	-34.0	CLEAR
0930 - SAMPLE TIME - ALL PARAMETERS STABLE.											

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KEVIN WEICHERT / TtNUS	SAMPLER(S) SIGNATURES: K-WLt	SAMPLING INITIATED AT: 0930	SAMPLING ENDED AT: 0940
PUMP OR TUBING DEPTH IN WELL (feet): 6.6	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) Filtration Equipment Type: _____	FILTER SIZE: ____ µm	DUPLICATE: (Y) (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	12	AG	1L	H_2SO_4	1L		TRPH / EL-PRO	

REMARKS: ~~DUPLICATE MPT-AOCE-GW-DUP01-030810 COLLECTED~~ KW

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: **AOC - E**	SITE LOCATION: **NAVSTA MAYPORT**
WELL NO: MW-06	SAMPLE ID: MPT-AOCE-GW-MW006-030810
DATE: 3-8-10	

PURGING DATA

WELL DIAMETER (inches): 1.5	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 3.87 feet to 13.87 feet	STATIC DEPTH TO WATER (feet): 6.02	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
(13.87 - 6.02)(.16)(3.785 L/GAL) = 4.8 L | x5 = 24.0 L
_____Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.0	PURGING INITIATED AT: 0945	PURGING ENDED AT: 1012	TOTAL VOLUME PURGED (Liters): 8.1

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR / COLOR (describe)
0945	–	–	300	6.02	–	–	–	–	–	–	–
1001	4.8	4.8	300	6.05	7.52	19.47	0.711	0.94	31.68	-70.4	CLEAR
1006	1.5	6.3	300	6.05	7.52	19.57	0.711	0.88	19.01	-84.6	CLEAR
1009	.9	7.2	300	6.05	7.53	19.59	0.711	0.84	17.49	-89.4	CLEAR
1012	.9	8.1	300	6.05	7.53	19.60	0.711	0.80	16.33	-90.7	CLEAR
1015 - SAMPLE TIME - ALL PARAMETERS STABLE											

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KEVIN WEICHERT / TINUS	SAMPLER(S) SIGNATURES: K. Weichert	SAMPLING INITIATED AT: 1015	SAMPLING ENDED AT: 1035
PUMP OR TUBING DEPTH IN WELL (feet): 7.0	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type: _____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	6	AG	1L	H_2SO_4	1L		TRPH / FL-PRO	

REMARKS: MS/MSD COLLECTED

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: **AOC - E**	SITE LOCATION: **NAVSTA MAYPORT**
WELL NO: MW-02	SAMPLE ID: MPT-AOCE-GW-MW02-030810
DATE: 3-8-10	

PURGING DATA

WELL DIAMETER (inches): 1.5	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 3.9 feet to 13.9 feet	STATIC DEPTH TO WATER (feet): 5.62	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable) (13.9 - 5.62)(.16)(3.785 L/GAL) = 5.0 L X5 = 25.0 L
_____Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.6	PURGING INITIATED AT: 1046	PURGING ENDED AT: 1117	TOTAL VOLUME PURGED (Liters): 9.3

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR / COLOR (describe)
1046	–	–	300	5.62	–	–	–	–	–	–	–
1103	5.1	5.1	300	5.62	7.54	16.95	0.328	0.24	57.39	-93.7	CLOUDY
1108	1.5	6.6	300	5.62	7.47	17.08	0.392	0.29	28.66	-92.4	CLEAR
1111	.9	7.5	300	5.62	7.44	17.13	0.435	0.27	19.70	-106.5	CLEAR
1114	.9	8.4	300	5.62	7.44	17.14	0.438	0.28	17.22	-108.3	CLEAR
1117	.9	9.3	300	5.62	7.44	17.15	0.439	0.27	15.54	-105.4	CLEAR
1118- SAMPLE TIME- ALL PARAMETERS STABLE											

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KEVIN WEICHERT / TtNUS	SAMPLER(S) SIGNATURES: K. Weichert	SAMPLING INITIATED AT: 1118	SAMPLING ENDED AT: 1128
PUMP OR TUBING DEPTH IN WELL (feet): 6.6	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type: _____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	H_2SO_4	1 L			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: **AOC - E**	SITE LOCATION: **NAVSTA MAYPORT**
WELL NO: MW-04	SAMPLE ID: MPT-AOCE-GW-MW04-030810
DATE: 3-8-10	

PURGING DATA

WELL DIAMETER (inches): 1.5	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 3.4 feet to 13.4 feet	STATIC DEPTH TO WATER (feet): 6.00	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
(13.4 - 6.00)(.16)(3.785 L/GAL) = 4.5 L | x5 = 22.5 L
_____Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.0'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.0	PURGING INITIATED AT: 1137	PURGING ENDED AT: 1208	TOTAL VOLUME PURGED (Liters): 9.3

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR / COLOR (describe)
1137	–	–	300	6.00	–	–	–	–	–	–	–
1152	4.5	4.5	300	6.01	7.44	18.04	0.599	0.33	53.22	-99.2	CLOUDY
1157	1.5	6.0	300	6.01	7.45	18.12	0.606	0.24	31.11	-119.2	CLOUDY
1202	1.5	7.5	300	6.01	7.46	18.11	0.610	0.21	18.24	-132.1	CLEAR
1205	.9	8.4	300	6.01	7.46	18.12	0.614	0.21	15.98	-120.1	CLEAR
1208	.9	9.3	300	6.01	7.46	18.15	0.615	0.19	12.77	-117.2	CLEAR
1210	- SAMPLE TIME - ALL PARAMETERS STABLE										

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KEVIN WEICHERT / TtNUS	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1210	SAMPLING ENDED AT: 1219
PUMP OR TUBING DEPTH IN WELL (feet): 7.0	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type: _____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1L	H_2SO_4	1L		TRPH / EL-PRO	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: **AOC - E**	SITE LOCATION: **NAVSTA MAYPORT**

WELL NO: MW-07	SAMPLE ID: MPT-AOCE-GW-MW07-030810	DATE: 3-8-10

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 3.9 feet to 13.9 feet	STATIC DEPTH TO WATER (feet): 5.92	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
(13.9 - 5.92)(.16)(3.785 L/GAL) = 4.8L X5 = 24.0 L
_____Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~6.9~~ 9.9 (cw)	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~6.9~~ 9.9 (cw)	PURGING INITIATED AT: 1223	PURGING ENDED AT: 1250	TOTAL VOLUME PURGED (Liters): 8.1

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR / COLOR (describe)
1223	—	—	300	5.92	—	—	—	—	—	—	—
1239	4.8	4.8	300	5.94	7.31	19.39	1.833	0.20	34.46	-136.9	CLEAR
1244	1.5	6.3	300	5.94	7.31	19.33	1.716	0.16	19.81	-144.5	CLEAR
1247	.9	7.2	300	5.94	7.32	19.37	1.715	0.16	18.07	-144.4	CLEAR
1250	.9	8.1	300	5.94	7.31	19.31	1.714	0.16	14.88	-143.7	CLEAR
1252	- SAMPLE TIME- ALL PARAMETERS STABLE										

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KEVIN WEICHERT / TtNUS	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1252	SAMPLING ENDED AT: 1255
PUMP OR TUBING DEPTH IN WELL (feet): ~~6.9~~ (cw) 9.9	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) Filtration Equipment Type: _____	FILTER SIZE: ____ µm	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	1	P	250mL	HNO_3	250mL		ARSENIC	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: **AOC - E**	SITE LOCATION: **NAVSTA MAYPORT**

WELL NO: MW-03	SAMPLE ID: MPT-AOCE-GW-MW03-030810	DATE: 3-8-10

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 3.8 feet to 13.8 feet	STATIC DEPTH TO WATER (feet): 5.12	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
(13.8 – 5.12)(.16)(3.785 L/GAL) = 5.3L Liters | X 5 = 26.5

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.8	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.8	PURGING INITIATED AT: 1300	PURGING ENDED AT: 1324	TOTAL VOLUME PURGED (Liters): 7.2

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR / COLOR (describe)
1300	–	–	300	5.12	–	–	–	–	–	–	–
1318	5.4	5.4	300	5.13	7.40	18.81	0.727	0.28	9.03	-156.5	CLEAR
1321	.9	6.3	300	5.13	7.40	18.79	0.729	0.28	8.10	+62.6	CLEAR
1324	.9	7.2	300	5.13	7.39	18.84	0.730	0.27	7.99	-165.4	CLEAR
1325 - SAMPLE TIME - ALL PARAMETERS STABLE											

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KEVIN WEICHERT / TtNUS	SAMPLER(S) SIGNATURES: K-Weicht	SAMPLING INITIATED AT: 1325	SAMPLING ENDED AT: 1330
PUMP OR TUBING DEPTH IN WELL (feet): 9.8	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type: _____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	1	P	250mL	HNO3	250mL		ARSENIC	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: **AOC - E**	SITE LOCATION: **NAVSTA MAYPORT**
WELL NO: MW-05	SAMPLE ID: MPT-AOCE-GW-MW05-030810
DATE: 3-8-10	

PURGING DATA

WELL DIAMETER (inches): 1.5	TUBING DIAMETER (inches): 3/16"	WELL SCREEN INTERVAL DEPTH: 4.14 feet to 14.14 feet	STATIC DEPTH TO WATER (feet): 6.80	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
(14.14 - 6.80)(.16)(3.785 L/GAL) = 4.4L Liters | x5 = 22.0L

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.8	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.8	PURGING INITIATED AT: 0813	PURGING ENDED AT: 0838	TOTAL VOLUME PURGED (Liters): 7.5

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	ODOR / COLOR (describe)
0813	–	–	300	6.80	–	–	–	–	–	–	–
0828	4.5	4.5	300	6.81	7.68	18.72	0.548	0.51	16.72	-100.6	CLEAR
0833	1.5	6.0	300	6.81	7.68	18.70	0.544	0.53	12.71	-95.3	CLEAR
0838	1.5	7.5	300	6.81	7.69	18.73	0.545	0.50	10.02	-108.2	CLEAR

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KEVIN WEICHERT / TtNUS	SAMPLER(S) SIGNATURES: K-Weichert	SAMPLING INITIATED AT: 0840	SAMPLING ENDED AT: 0850
PUMP OR TUBING DEPTH IN WELL (feet): 7.8'	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) Filtration Equipment Type: _____	FILTER SIZE: ____ µm	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1L	H_2SO_4	1 L		TRPH/FL-PRO	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

SAFE WORK PERMIT
IDW MANAGEMENT
~~PRL#124~~ AOC-E
NAVSTA MAYPORT, FLORIDA

Permit No. 1 Date: 3-1-2010 Time: From 3-1-10 to 3-5-10

I. Work limited to the following (description, area, equipment used): IDW management, moving and storage of drums.

II. Primary Hazards: Potential hazards associated with this task: chemical exposure; transferring contamination; lifting; pinch and compressions; noise; slip, trip and fall, temperature extremes, and inclement weather

III. Field Crew: K. WEICHERT, D. HARDISON, DANIEL RICHARDS, LANCE CHANEY, CHRIS BURGER

IV. On-site Inspection conducted ☑ Yes ☐ No Initials of Inspector _____ TtNUS
Equipment Inspection required ☑ Yes ☐ No Initials of Inspector _____ TtNUS

V. Protective equipment required
Level D ☒ Level B ☐
Level C ☐ Level A ☐

Respiratory equipment required
Yes ☐ Specify on the reverse
No ☒

Modifications/Exceptions: _____

VI. Chemicals of Concern	**Hazard Monitoring**	**Action Level(s)**	**Response Measures**
Containerized/diluted	Not Required	Not Applicable	In event of minor spill, clean up and re-containerize in accordance with HASP

Primary Route(s) of Exposure/Hazard: incidental ingestion, contact, inhalation of accumulated vapors within drums

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

VII. Additional Safety Equipment/Procedures

Hard-hat	☐ Yes	☐ No	Hearing Protection (Plugs/Muffs)	☐ Yes	☐ No
Safety Glasses	☐ Yes	☐ No	Safety belt/harness	☐ Yes	☒ No
Chemical/splash goggles	☐ Yes	☒ No	Radio/Cellular Phone	☐ Yes	☐ No
Splash Shield	☐ Yes	☒ No	Barricades	☐ Yes	☒ No
Splash suits/coveralls	☐ Yes	☒ No	Gloves (Type – Work)	☒ Yes	☐ No
Impermeable apron	☐ Yes	☒ No	Work/rest regimen	☐ Yes	☒ No
Steel toe work shoes or boots	☒ Yes	☐ No	Chemical Resistant Boot Covers	☐ Yes	☒ No
High Visibility vest	☐ Yes	☐ No	Tape up/use insect repellent	☐ Yes	☒ No
First Aid Kit	☒ Yes	☐ No	Fire Extinguisher	☐ Yes	☒ No
Safety Shower/Eyewash	☐ Yes	☒ No	Other	☐ Yes	☐ No

Modifications/Exceptions: _____

VIII. Site Preparation

	Yes	No	NA
Utility Locating and Excavation Clearance completed	☐	☐	☒
Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place	☐	☐	☐
Physical Hazards Identified and Isolated (Splash and containment barriers)	☐	☐	☐
Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc).	☐	☐	☐

IX. Additional Permits required (Hot work, confined space entry, excavation etc.). ☐ Yes ☒ No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

X. Special instructions, precautions: Inspect all containers used to store IDW prior to use. Establish an approved (NASA RPM) drum storage area within the confines of the work area; Request Drum Spill Pallets from the NASA RPM. These may be obtained from the POL Facility; An "Empty or Hazardous Waste Determination in Progress Label" and Barcode must be placed on the drum and outside of the spill containment pallet. Labels and Barcodes may be obtained from the NASA RPM or from the POL Facility; Once you begin filling a drum it will be added to the Waste Inventory List; Drums are not to be filled any greater than 80% capacity; All drums will have their outer shell cleaned of any soils. Label Information- Describe Contents, Identify fill date, Contact Information, IDW Inventory to be. provided to the NASA RPM, Site name, Pallet Number, Drum Number, Drum Content, % of drum filled, Source Location. IDW Tie down procedure - During hurricane season, all spill pallets shall be strapped down before leaving the site; Once the drums are filled, they will be sampled to establish a disposal profile. If you are relying on sample information for waste profiling, this information should be provided to the NASA RPM as soon as it is available. Contact NASA RPM upon waste profiling for Waste Management removal. General refuse will be placed in a dumpster at the work location. Use mechanical lifting aids and/or proper lifting practices and obtain assistance when handling heavy drums.

Permit Issued by: KEVIN WEICHERT Permit Accepted by: _____

SAFE WORK PERMIT
MULTI MEDIA SAMPLING
AOC-E
NAVSTA MAYPORT, FLORIDA

Permit No. 2 Date: 3-1-2010 Time: From 3-1-2010 to 3-5-10

I. Work limited to the following (description, area, equipment used): Multimedia sampling including soils, groundwater and IDW

II. Primary Hazards: Potential hazards associated with this task: contact with site contaminants; transfer of contamination; heavy lifting; slip, trip and falls; cuts and lacerations; vehicular and foot traffic; ambient temperature extremes; insect/animal bites and stings, poisonous plants, inclement weather.

III. Field Crew: K. WEICHERT, D. HARDISON, D. RICHARDS, LANCE CHANEY, C. BURGER

IV. On-site Inspection conducted ☐ Yes ☐ No Initials of Inspector _____ TtNUS

Equipment Inspection required ☐ Yes ☐ No Initials of Inspector _____ TtNUS

V. Protective equipment required

Level D ☒ Level B ☐
Level C ☐ Level A ☐

Respiratory equipment required

Yes ☐ Specify on the reverse
No ☒

Modifications/Exceptions:

VI.

Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
Benzene, Coal pitch tar	PID/FID	10ppm sustained (>1 minute)	Evacuate area / call PHSO

Primary Route(s) of Exposure/Hazard: Conservative action levels have been established given limited information regarding potential site contaminants. Airborne VOCs and dusts are unlikely to be present given the proposed tasks and limited disturbance of media. Potential contact/exposures will be prevented through the use of PPE and safe work practices.

*** BZ = Breathing Zone and BG =** daily-established Background levels

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

VII. Additional Safety Equipment/Procedures

Hard-hat	☐ Yes	☐ No	Hearing Protection (Plugs/Muffs)	☐ Yes	☐ No
Safety Glasses	☒ Yes	☐ No	Safety Belt/Harness	☐ Yes	☒ No
Chemical/Splash Goggles	☐ Yes	☒ No	Radio/Cellular Phone	☐ Yes	☐ No
Splash Shield	☐ Yes	☒ No	Barricades	☐ Yes	☐ No
Splash Suits/Coveralls	☐ Yes	☐ No	Gloves (Type – Nitrile)	☒ Yes	☐ No
Impermeable Apron	☐ Yes	☒ No	Work/rest regimen	☐ Yes	☐ No
Steel Toe Work Shoes or Boots	☒ Yes	☐ No	Chemical Resistant Boot Covers	☐ Yes	☒ No
High Visibility Vest	☐ Yes	☐ No	Tape/Insect Repellent	☐ Yes	☐ No
First Aid Kit	☐ Yes	☐ No	Fire Extinguisher	☐ Yes	☐ No
Safety Shower/Eyewash	☐ Yes	☐ No	Other	☐ Yes	☐ No

Modifications/Exceptions: The following PPE will be required if/when sampling activities are performed near an operating DPT rig: Hard hats and Hearing Protection. Additional PPE may be prescribed at the SSO's discretion.

VIII. Site Preparation

	Yes	No	NA
Utility Locating and Excavation Clearance completed	☐	☐	☐
Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place	☐	☐	☐
Physical Hazards Identified and Isolated (Splash and containment barriers)	☐	☐	☐
Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc).	☐	☐	☐

IX. Additional Permits required (Hot work, confined space entry, excavation etc.) ☐ Yes ☒ No

If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

X. Special instructions, precautions: Limited information is available regarding specific contaminants of concern. Elevated instrument readings in worker breathing zone will require site activities to be suspended – contact the PHSO. Record all source and breathings zone instrument readings in the field log book. Use safe lifting/carrying techniques. Assume media is contaminated and avoid contact through the use of safe work practices, PPE and decontamination. Tape-up bottom of pants legs to top of work boots and use insect repellants (containing DEET on skin, and repellants containing Permethrin on clothing) as necessary. Follow manufacturer's recommendations for repellant application and re-application. Use Geoprobe kits to secure acetate liners when cutting sleeves. Where necessary, wear a cut resistant glove on the non-knife hand. Always cut away from your body. Use sharp cutting implements to avoid struggling with dull attachments.

Permit Issued by: K. Weichert Permit Accepted by: [illegible]

SAFE WORK PERMIT
SOIL BORINGS
AOC - E
NAVSTA MAYPORT, FLORIDA

Permit No. 3 Date: 3-1-10 Time: From 3-1-10 to 3-5-10

I. Work limited to the following (description, area, equipment used): Soil boring and monitoring well installation. Soil boring and groundwater point installation will be performed using DPT methods.

II. Primary Hazards: Potential hazards associated with this task: contact with site contaminants; transfer of contamination; heavy equipment hazards; elevated noise; energized systems/utilities; heavy lifting; slip, trip and fall; cuts and lacerations; vehicular and foot traffic; ambient temperature extremes; flying projectiles; insect/animal bites and stings, poisonous plants, inclement weather

III. Field Crew: K. WEICHERT, D. HARDISON, D. RICHARDS, L. CHANEY, C. BURGER, P. JOHNSON

IV. On-site Inspection conducted ☐ Yes ☐ No Initials of Inspector _____TtNUS

Equipment Inspection required ☒ Yes ☐ No Initials of Inspector _____TtNUS

V. Protective equipment required

Level D ☒ Level B ☐
Level C ☐ Level A ☐

Respiratory equipment required

Yes ☐ Specify on the reverse
No ☒

Modifications/Exceptions: _____

VI.

Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
Benzene,	FID/PID	10ppm sustained (>1 minute)	Evacuate area / call PHSO
Coal Tar Pitch			

Primary Route(s) of Exposure/Hazard: Conservative action levels have been established given limited information regarding potential site contaminants. Airborne VOCs and dusts are unlikely to be present given the proposed tasks and limited disturbance of media. Potential contact/exposures will be prevented through the use of PPE and safe work practices.

*** BZ = Breathing Zone and BG =** daily-established Background levels.

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

VII. Additional Safety Equipment/Procedures

Hard-hat	☒ Yes	☐ No	Hearing Protection (Plugs/Muffs)	☒ Yes	☐ No
Safety Glasses	☒ Yes	☐ No	Safety belt/harness	☐ Yes	☒ No
Chemical/splash goggles	☐ Yes	☒ No	Radio/Cellular Phone	☐ Yes	☐ No
Splash shield	☐ Yes	☒ No	Barricades	☐ Yes	☐ No
Splash suits/coveralls	☐ Yes	☐ No	Gloves (Type – nitrile/work)	☒ Yes	☐ No
Impermeable apron	☐ Yes	☒ No	Work/rest regimen	☐ Yes	☐ No
Steel toe work shoes or boots	☒ Yes	☐ No	Chemical resistant boot covers	☐ Yes	☐ No
High visibility vest	☐ Yes	☐ No	Tape up/use insect repellent	☐ Yes	☐ No
First Aid Kit	☐ Yes	☐ No	Fire extinguisher	☐ Yes	☐ No
Safety Shower/Eyewash	☐ Yes	☒ No	Other	☐ Yes	☐ No

Modifications/Exceptions: Hard hats and hearing protection when working near DPT rig. Coveralls if the potential for soiling work clothing exists. Other PPE at SSO's discretion (reflective vests, Tyvek coveralls, boot covers, etc.).

VIII. Site Preparation

	Yes	No	NA
Utility Locating and Excavation Clearance completed	☐	☐	☐
Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place	☐	☐	☐
Physical Hazards Identified and Isolated (Splash and containment barriers)	☐	☐	☐
Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc).	☐	☐	☐

IX. Additional Permits required (Hot work, confined space entry, excavation etc.). ☒ Yes ☐ No

If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

X. Special instructions, precautions: Limited information is available regarding specific contaminants of concern. Elevated instrument readings in worker breathing zone will require site activities to be suspended – contact the PHSO. Record all source and breathings zone instrument readings in the field log book. Use safe lifting/carrying techniques. Inspect equipment prior to use. **Overhead Power Lines -** Pre-inspect vehicle moving lanes noting overhead utilities. Do not approach within 10' of any overhead electric line of 50 kV or less. Additional clearance distance is required for lines of >50kV. For additional information See Attachment IV of the Master Hasp or Section 7.0 of the HSGM. **Underground utilities** – Request an Excavation permit at least 2 weeks in advance of breaking ground. Complete KSC Form 26-312 Utility Locate/ Excavation Permit Request and fax to Kim Scott (321) 861-0336; Mark subsurface locations on the ground using white paint; Provide drawings, etc. to the Dig Police; Book Dig Police (2 to 4 weeks in advance); Bill Woodward (321)867-7231 Pager 232-5038 or Tim Francisco (321)867-2957 Pager 232-5040; If possible meet the Dig Police during clearance to make sure all points have been evaluated; Retain Copy of Permit on-site during all excavation activities. Note: SGS Missions Support Operations identifies "NO DIG DAYS". As these forecasts change periodically check with SGS Mission Support (321) 853-5211 for the latest forecast.

Permit Issued by: _____ Permit Accepted by: _____

SAFE WORK PERMIT
DECONTAMINATION ACTIVITIES
AOC E
MAYPORT, FLORIDA

Permit No. 5 Date: 3-1-10 Time: From 3-1-10 to 3-5-10

I. **Work limited to the following (description, area, equipment used):** Decontamination of the sampling and heavy equipment

II. **Primary Hazards:** Contact with site contaminants; decontamination fluids; elevated noise; heavy lifting; slip, trip and fall; flying projectiles; inclement weather; ambient temperature extremes

III. **Field Crew:** K. WEICHERT, D. HARDISON, D. RICHARDS, L. CHANEY, C. BURGER

IV. **On-site Inspection conducted** ☐ Yes ☐ No Initials of Inspector _____TtNUS
Equipment Inspection required ☐ Yes ☐ No Initials of Inspector _____TtNUS

V. **Protective equipment required**
Level D ☒ Level B ☐
Level C ☐ Level A ☐
Modifications/Exceptions:

Respiratory equipment required
Yes ☐ Specify on the reverse
No ☒

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
benzene and coal tar pitch	PID with a 10.6 ev lamp	Any readings on equipment	Wash and rinse until 0 ppm reading

Primary Route(s) of Exposure/Hazard: Inhalation of airborne vapors or dusts is most likely route of exposure – though unlikely to be present. Incidental ingestion and contact with contaminants will be prevented through the use of PPE and safe work practices.

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

VII. **Additional Safety Equipment/Procedures**

Hard-Hat	☒ Yes	☐ No	Hearing Protection (Plugs/Muffs)	☒ Yes	☐ No
Safety Glasses	☒ Yes	☐ No	Safety Belt/Harness	☐ Yes	☒ No
Chemical/Splash Goggles	☐ Yes	☒ No	Radio/Cellular Phone	☐ Yes	☐ No
Splash Shield	☒ Yes	☐ No	Barricades	☐ Yes	☒ No
Splash Suits/Coveralls	☒ Yes	☐ No	Gloves (Type – Nitrile)	☒ Yes	☐ No
Impermeable apron	☐ Yes	☐ No	Work/rest Regimen	☐ Yes	☐ No
Steel Toe Work Shoes/Boots	☒ Yes	☐ No	Chemical Resistant Boot Covers	☐ Yes	☐ No
High Visibility Vest	☐ Yes	☒ No	Tape/Insect Repellent	☐ Yes	☐ No
First Aid Kit	☒ Yes	☐ No	Fire Extinguisher	☐ Yes	☐ No
Safety Shower/Eyewash	☐ Yes	☐ No	Other	☐ Yes	☐ No

Modifications/Exceptions: For sampling equipment the splash shield, splash suits/coveralls, hearing protection are not required.

VIII. **Site Preparation**

	Yes	No	NA
Utility Locating and Excavation Clearance completed	☐	☐	☐
Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place	☐	☐	☐
Physical Hazards Identified and Isolated (Splash and containment barriers)	☐	☐	☐
Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc).	☐	☐	☐

IX. **Additional Permits required** (Hot work, confined space entry, excavation etc.). ☐ Yes ☒ No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

X. **Special instructions, precautions:** Review and follow the instructions on the MSDS for the decontamination fluids.

Permit Issued by: K. WLL Permit Accepted by: [illegible]

FIGURE 8-1
SITE-SPECIFIC TRAINING DOCUMENTATION

My signature below indicates that I am aware of the potential hazardous nature of performing field investigation activities at NS Mayport and that I have received site-specific training which included the elements presented below:

- Names of designated personnel and alternates responsible for site safety and health
- Safety, health, and other hazards present on site
- Use of personal protective equipment
- Safe use of engineering controls and equipment
- Medical surveillance requirements
- Signs and symptoms of overexposure
- Emergency response procedures (evacuation and assembly points)
- Incipient response procedures
- Review of the contents of relevant Material Safety Data Sheets
- Review of the use of Safe Work Permits

I have been given the opportunity to ask questions and my questions have been answered to my satisfaction. The dates of my training and my medical surveillance requirements indicated below are accurate to the best of my knowledge.

Name (Printed and Signature)	Site-Specific Training Date	40-Hour Training (Date)	8-Hour Refresher Training (Date)	8-Hour Supervisory Training (Date)	Medical Exam
KEVIN WEICHERT	3-1-10	JAN08	1/10		Feb 10
Donald Hamilton	3/1/10	3/04	5/09	6/06	5/08
Chirstopher Bu	3/1/10	5/01	7/3/09	5/01	1/26/10
CAMER CHANEY	3/1/10	6/07		10/09	11/15/09
DON Richards	3/1/10	8/99	7-3-09	7-3-09	2-1-10
Pete Johnson	3/2/10	2/09	7/09		2/09

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by all on-site personnel and kept in the command post during the conduct of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

Project AOC-E SOIL SAMPLING/ WELL INSTALL

Name KEVIN WEICHERT Home Telephone 217-851-4722

Address 1182 SUMMER SPRING DR., MIDDLEBURG, FL

Age 25 Height 5' 10" Weight 151

Name of Next Kin LUETTA WEICHERT

Drug or other Allergies PENNICILLIN

Particular Sensitivities

Do You Wear Contacts? YES

Provide a Checklist of Previous Illnesses or Exposure to Hazardous Chemicals

What medications are you presently using?

Do you have any medical restrictions? PENNICILLIN

Name, Address, and Phone Number of personal physician: BO EVANS
11701-32 SAN JOSE BLVD. SUITE 103
904-267-9075

I am the individual described above. I have read and understand this HASP.

Signature

3-1-10

Date

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by all on-site personnel and kept in the command post during the conduct of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

Project: AOC - E

Name: Donald Hendrix Home Telephone: 466-5957

Address: 5653 Milner Dr S

Age: 82 Height: 5'11" Weight: 195

Name of Next Kin: John Jones

Drug or other Allergies: None

Particular Sensitivities: None

Do You Wear Contacts? No

Provide a Checklist of Previous Illnesses or Exposure to Hazardous Chemicals

What medications are you presently using? Claritin

Do you have any medical restrictions? No

Name, Address, and Phone Number of personal physician:

Dr Brian Kempbach

Jax orthopaedic Institute

I am the individual described above. I have read and understand this HASP.

Signature Date: 3/1/10

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by all on-site personnel and kept in the command post during the conduct of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

Project AOC-E

Name Dan Richards Home Telephone

Address 3513 Valley Dr

Age 40 Height 6 Weight 200

Name of Next Kin Frances Richards

Drug or other Allergies Penicillen

Particular Sensitivities

Do You Wear Contacts? NO

Provide a Checklist of Previous Illnesses or Exposure to Hazardous Chemicals N/A

What medications are you presently using? N/A

Do you have any medical restrictions? N/A

Name, Address, and Phone Number of personal physician: N/A

I am the individual described above. I have read and understand this HASP.

Signature

3-1-10

Date

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by all on-site personnel and kept in the command post during the conduct of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

Project _____

Name CANNE CHANEY Home Telephone 863 965 7911

Address 2736 AVE R NW WINTER HAVEN FL 33881

Age 23 Height 5'10" Weight 210

Name of Next Kin ROBERT CHANEY

Drug or other Allergies NONE

Particular Sensitivities N/A

Do You Wear Contacts? NO

Provide a Checklist of Previous Illnesses or Exposure to Hazardous Chemicals _____

What medications are you presently using? NONE

Do you have any medical restrictions? NO

Name, Address, and Phone Number of personal physician: _____

I am the individual described above. I have read and understand this HASP.

Signature 3/1/10

Date

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by all on-site personnel and kept in the command post during the conduct of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

Project _____

Name Christopher Burger Home Telephone 863 581 5697

Address 2504 Burns St Lakeland Fl 33801

Age 37 Height 6'0 Weight 175

Name of Next Kin Susan Burger

Drug or other Allergies N/A

Particular Sensitivities N/A

Do You Wear Contacts? no

Provide a Checklist of Previous Illnesses or Exposure to Hazardous Chemicals N/A

What medications are you presently using? N/A

Do you have any medical restrictions? no

Name, Address, and Phone Number of personal physician: Tim Valaices

Clark & Daughtery 98N Lakeland Fl

I am the individual described above. I have read and understand this HASP.

C. B. 3/1/18

Signature Date

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by all on-site personnel and kept in the command post during the conduct of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

Project AOC-E

Name Pete Johnson Home Telephone 904 288-0483

Address 4880 Northford Dr W

Age 38 Height 6'0" Weight 170

Name of Next Kin Alanna Lowry

Drug or other Allergies None

Particular Sensitivities None

Do You Wear Contacts? No

Provide a Checklist of Previous Illnesses or Exposure to Hazardous Chemicals

What medications are you presently using? Antibiotics

Do you have any medical restrictions? No

Name, Address, and Phone Number of personal physician: Dr Toquinto

I am the individual described above. I have read and understand this HASP.

Signature 3/2/10

Date

Tetra Tech NUS, Inc.

DAILY ACTIVITIES RECORD

PROJECT NAME:	AOC- E	**PROJECT NUMBER:**	112G00871
CLIENT:	US. NAVY	**LOCATION:**	AOC-E
DATE:	3-1-10	**ARRIVAL TIME:**	0920
Tt NUS PERSONNEL:	K.WEICHERT, D.HARDISON	**DEPARTURE TIME:**	1530
CONTRACTOR:	~~TEAR~~ TETRA TECH	**DRILLER:**	PREFERRED

ITEM	QUANTITY ESTIMATE	QUANTITY TODAY	PREVIOUS TOTAL QUANTITY	CUMULATIVE QUANTITY TO DATE
MOBILIZATION	1	1	–	1
DAILY DPT RATE	1	1	–	1
PREPACKED WELL	7	7	–	6 @ 15'
WELL COMPLETION	7	5	–	5
WELL DEVELOPMENT	0	0	–	0
PIEZOMETER	0	0	–	0

COMMENTS:

APPROVED BY: K. Weichert

Tt NUS REPRESENTATIVE

C. B.

DRILLER

DATE: 3/1/10

Tetra Tech NUS, Inc.

DAILY ACTIVITIES RECORD

PROJECT NAME:	AOC-E	**PROJECT NUMBER:**	112G00871
CLIENT:	U.S. NAVY	**LOCATION:**	NAVSTA MAYPORT
DATE:	3-2-10	**ARRIVAL TIME:**	0700
Tt NUS PERSONNEL:	K. WEICHERT, D. JOHNSON	**DEPARTURE TIME:**	1330
CONTRACTOR:		**DRILLER:**	PREFERRED

ITEM	QUANTITY ESTIMATE	QUANTITY TODAY	PREVIOUS TOTAL QUANTITY	CUMULATIVE QUANTITY TO DATE	
DEMOBILIZATION	1	1	0	1	
DAILY DPT	1	1	1	2	
PREPACKED WELL	2	2	7	9	@15'
WELL COMPLETION	4	4	5	9	
DEVELOPMENT	7	7	0	7	
PIEZOMETER	3	3	0	3	@ 9 ft

COMMENTS:

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 3-2-10

Equipment Inspection Checklist for Drill Rigs

Company: Preferred Drilling

Unit/Serial No#: 6620 DT

Inspection Date: 3 / 1 / 10 **Time:** 10 : 40

Equipment Type: DPT
(e.g, Drill Rigs Hollow Stem, Mud Rotary, Direct Push, HDD)

Project Name: AOC E

Project No#: 112G00871

Yes	No	NA	Requirement	Comments
			Emergency Stop Devices	
X			• Emergency Stop Devices (At points of operation)	
X			• Have all emergency shut offs identified been communicated to the field crew?	
X			• Has a person been designated as the Emergency Stop Device Operator?	
			Highway Use	
		X	• Cab, mirrors, safety glass?	
		X	• Turn signals, lights, brake lights, etc. (front/rear) for equipment approved for highway use?	
		X	• Seat Belts?	
		X	• Is the equipment equipped with audible back-up alarms and back-up lights?	
		X	• Horn and gauges	
		X	• Brake condition (dynamic, park, etc.)	
		X	• Tires (Tread) or tracks	
		X	• Windshield wipers	
		X	• Exhaust system	
		X	• Steering (standard and emergency)	
		X	• Wheel Chocks?	
		X	• Are tools and material secured to prevent movement during transport? Especially those within the cab?	
		X	• Are there flammables or solvents or other prohibited substances stored within the cab?	
		X	• Are tools or debris in the cab that may adversely influence operation of the vehicle (in and around brakes, clutch, gas pedals)	
			Fluid Levels:	
X			• Engine oil	
X			• Transmission fluid	
		X	• Brake fluid	
		X	• Cooling system fluid	
X			• Hoses and belts	
X			• Hydraulic oil	

Equipment Inspection Checklist for Drill Rigs
Page 2

Unit/Serial No#: 6620 DT **Inspection Date:** 3 / 1 / 16

Yes	No	NA	Requirement	Comments
			High Pressure Hydraulic Lines	
☐	☒	☐	• Obvious damage	
☒	☐	☐	• Operator protected from accidental release	
☒	☐	☐	• Coupling devices, connectors, retention cables/pins are in good condition and in place	
			Mast Condition	
☒	☐	☐	• Structural components/tubing	
☒	☐	☐	• Connection points	
☒	☐	☐	• Pins	
☒	☐	☐	• Welds	
☒	☐	☐	• Outriggers	
☒	☐	☐	• Operational	
☒	☐	☐	• Plumb (when raised)	
			Hooks	
☐	☐	☒	• Are the hooks equipped with Safety Latches?	
☐	☐	☒	• Does it appear that the hook is showing signs of wear in excess of 10% original dimension?	
☐	☐	☒	• Is there a bend or twist exceeding 10% from the plane of an unbent hook?	
☐	☐	☒	• Increase in throat opening exceeding 15% from new condition	
☐	☐	☒	• Excessive nicks and/or gouges	
☐	☐	☒	• Clips	
☐	☐	☒	• Number of U-Type (Crosby) Clips (cable size 5/16 – 5/8 = 3 clips minimum) (cable size 3/4 – 1 inch = 4 clips minimum) (cable size 1 1/8 – 1 3/8 inch = 5 clips minimum)	

Equipment Inspection Checklist for Drill Rigs
Page 3

Unit/Serial No#: 6620 DT **Inspection Date:** 3 / 1 / 10

Yes	No	NA	Requirement	Comments
			Power cable and/or hoist cable	
☐	☐	☒	• Reduction in Rope diameter π (5/16 wire rope>1/64 reduction nominal size -replace) (3/8 to 1/2 wire rope>1/32 reduction nominal size-replace) (9/16 to 3/4 wire rope>3/64 reduction nominal size-replace)	
☐	☐	☒	• Number of broken wires (6 randomly broken wires in one rope lay) (3 broken wires in one strand)	
☐	☐	☒	• Number of wire rope wraps left on the Running Drum at nominal use (≥3 required)	
☐	☐	☒	- Lead (primary) sheave is centered on the running drum	
☐	☐	☒	• Lubrication of wire rope (adequate?)	
☐	☐	☒	• Kinks, bends – Flattened to > 50% diameter	
			Hemp/Fiber rope (Cathead/Split Spoon Hammer)	
☐	☐	☒	• Minimum ¾; maximum 1 inch rope diameter (Inspect for physical damage)	
☐	☐	☒	• Rope to hammer is securely fastened	
			Safety Guards –	
☒	☐	☐	• Around rotating apparatus (belts, pulleys, sprockets, spindles, drums, flywheels, chains) all points of operations protected from accidental contact?	
☐	☒	☐	• Hot pipes and surfaces exposed to accidental contact?	
☒	☐	☐	• High pressure lines	
☒	☐	☐	• Nip/pinch points	
			Operator Qualifications	
☐	☐	☒	• Does the operator have proper licensing where applicable, (e.g., CDL)?	
☒	☐	☐	• Does the operator, understand the equipment's operating instructions?	
☒	☐	☐	• Is the operator experienced with this equipment?	
☒	☐	☐	• Is the operator 21 years of age or more?	

Equipment Inspection Checklist for Drill Rigs
Page 4

Unit/Serial No#: 6620 DT **Inspection Date:** 3 / 1 / 16

Yes	No	NA	Requirement	Comments
			PPE Required for Drill Rig Exclusion Zone	
X	☐	☐	• Hardhat	
X	☐	☐	• Safety glasses	
X	☐	☐	• Work gloves	
X	☐	☐	• Chemical resistant gloves_____	
X	☐	☐	• Steel toed Work Boots	
☐	☐	X	• Chemical resistant Boot Covers	
☐	☐	X	• Apron	
☐	☐	X	• Coveralls Tyvek, Saranex, cotton)_____	
			Other Hazards	
X	☐	☐	• Excessive Noise Levels? _____dBA	
☐	☐	X	• Chemical hazards (Drilling supplies - Sand, bentonite, grout, fuel, etc.)	
☐	☐	☐	- MSDSs available?	
X	☐	☐	• Will On-site fuel occur	
X	☐	☐	- Safety cans available?	
X	☐	☐	- Fire extinguisher (Type/Rating -_____)	

Approved for Use ☒ Yes ☐ No ☐ See Comments

Site Health and Safety Officer

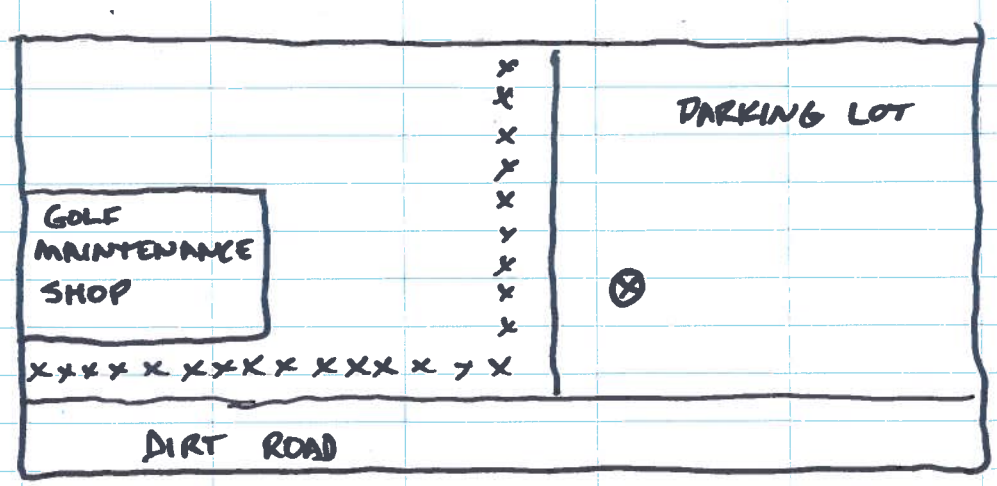
Operator

EVENT 2

CTO 88 1126-00871 AOC-E - NAVSTA MAYPORT 11-22-10

PERSONNEL: K. WEICHERT - TENUS
C. BURGER (PDS), J. NIX (PDS)
TRUCK: POV - 2010 FORD F-150
PPE: LEVEL "D"
WEATHER: WARM, PARTLY CLOUDY,
EQUIPMENT: GEOPROBE 6620 DPT
OBJECTIVE: INSTALL 1 SHALLOW MONITORING WELL AT AOC-E

1450 CREW ARRIVES ON SITE AND CONTACTS ERNIE AT THE GOLF COURSE MAINTENANCE SHOP THAT DRILLING WILL BEGIN
1455 KW CONDUCTS SITE SPECIFIC H&S MEETING
1505 CREW BEGINS WORK ON MPT-AOCE-MW085 - NO MOISTURE IN TO 5' OF HAND AUGERING - KW INSTRUCTS CREW TO DRILL TO 15' BGS
1535 DRILLING COMPLETE, CREW BEGINS INSTALLATION OF WELL PAD
1620 MPT-AOCE-MW085 COMPLETE - CREW BEGINS LOADING UP
1655 ALL PERSONNEL DEPART NAVSTA MAYPORT



⊗ = MPT-AOCE-MW085 - 15' BGS
XXXX = FENCE

KPW

NAVSTA MAYPORT AOC-E 1-24-11

PERSONNEL: K. WEICHERT, Z. SCRIBNER
TRUCK: ~~POV~~ 2001 F-250
PPPE: LEVEL "D"
WEATHER: COOL 60°, WINDY
OBJECTIVE: COLLECT T.O.C. READINGS FROM 8 WELLS AT AOC-E

0815 KW + ZS ON SITE SETTING UP AND TAKING MEASUREMENTS
- ALL WELLS SHOT TO MW08S.

BASELINE - MW08S - ① 9.12' = 0 / #2 = 8.79'

WELL	READING 1	± BASELINE	READING 2	± BASELINE	± BETWEEN ①+②
MW01S	— ①	—	—	—	—
MW02S	8.81'	-0.31'	8.50'	-0.29'	0.02'
MW03S	8.66'	-0.46'	8.34'	-0.45'	0.01'
MW04S	7.81'	-1.31'	7.49'	-1.30'	0.01'
MW05S	6.68'	-2.44'	6.36'	-2.43'	0.01'
MW06S	— ①	—	—	—	—
MW07S	7.89'	-1.23'	7.58'	-1.21'	0.02'

① MW01S + MW06S OUTSIDE LINE OF SITE - THEREFORE, BOTH WELLS COMPARED TO MW05S FOR RELATIVE DATA BELOW

BASELINE ② - MW05S - [1] 7.81' [2] 7.53'

WELL	READ ①	± BASE	READ ②	± BASE	± BETWEEN READ ①+②
MW01S	8.94'	+1.13'	8.67'	+1.14'	0.01'
MW06S	8.56'	~~+1.03'~~ +0.75	8.30'	+0.77'	0.02'

1045 - ALL READINGS LOOK GOOD, KW + ZS DEPART FOR SNMUS 6+7

KPW

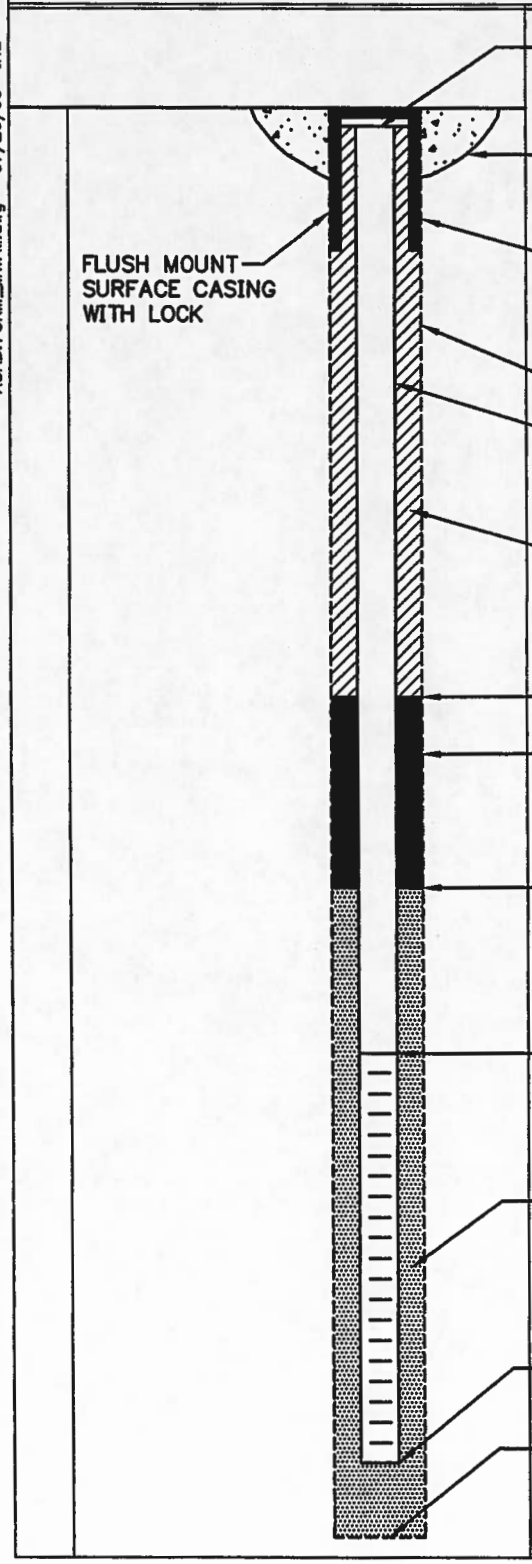
K.W.

WELL NO.: MPT-AOCE-MW083

Tetra Tech NUS, Inc.

OVERBURDEN MONITORING WELL SHEET FLUSH - MOUNT

PROJECT MPT-AOCE	LOCATION NAVSTA MAYPORT	DRILLER PREFERRED
PROJECT NO. 1126-00871	BORING	DRILLING METHOD DPT
DATE BEGUN 11-22-10	DATE COMPLETED 11-22-10	
FIELD GEOLOGIST K. WEICHERT		DEVELOPMENT METHOD
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: CONCRETE

TYPE OF PROTECTIVE CASING: STEEL

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 3.25"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 1.5"

TYPE OF BACKFILL/SEAL: GROUT

ELEVATION/DEPTH TOP OF SEAL: 1.8'/

TYPE OF SEAL: FINE SAND

ELEVATION/DEPTH TOP OF SAND: 3.8'/

ELEVATION/DEPTH TOP OF SCREEN: 4.8'/

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 0.10/10'

TYPE OF SAND PACK: 20/40 PRE-PACK

DIAMETER OF HOLE IN BEDROCK: 3.25"

ELEVATION / DEPTH BOTTOM OF SCREEN: 14.8'/

ELEVATION / DEPTH BOTTOM OF SAND: 14.8'/

ELEVATION/DEPTH BOTTOM OF HOLE: 14.8'/

BACKFILL MATERIAL BELOW SAND:

ACAD:FORM_MWFM.dwg 07/20/99 INL

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: AOC-E	SITE LOCATION: MW-08S
WELL NO: MPT-AOC-E-MW08S	SAMPLE ID: MPT-AOCLE-MW08S-20101206 DATE: 12/6/10

PURGING DATA

WELL DIAMETER (inches): 1.25	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet): 5.48	PURGE PUMP TYPE OR BAILER: peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 14 - 5.48 = 8.52 x .06 = .511 x 3.785 = 1.93
= (feet – feet) X gallons/foot = Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7	PURGING INITIATED AT: 1630	PURGING ENDED AT: 1706	TOTAL VOLUME PURGED (gallons): 7.2

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Literss)	PURGE RATE (Lpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1630	—	—	200	5.48	—						
1700	6.0	6.0	200	5.53	7.27	23.59	0.784	0.20	19.27	clear	—
1703	.6	6.6	200	5.54	7.27	23.62	0.782	0.19	18.62	clear	-
1706	.6	7.2	200	5.54	7.27	23.58	0.785	0.18	13.43	clear	-
1717	Sample time										

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeff Krone TTNUS	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1717	SAMPLING ENDED AT: 1730
PUMP OR TUBING DEPTH IN WELL (feet): 7	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
1	2	AG	1L	—	1L		8270 SIM	PP	
1	2	AG	1L	H2SO4	1L	<2	TRPH	PP	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 0880 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G08876	NAVSTA Mayport AOC-E			ENCO / Chris Tompkins
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jeff Kronc		Dave Siefker	904 636 6125	4810 Executive Park Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Hand delivered		Jacksonville, Fl 32216

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P
PRESERVATIVE USED: HNO3

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: Arsenic 6010								COMMENTS
12/6	1717	MPT-AOC-E-MW05-20101206				GW	G	1	X								Cool to 4°C

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
[signature]	12/7/10	1729	[signature]	12/7/10	1729
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

APPENDIX C

CROSS-SECTION INFORMATION

3.0 NAVSTA MAYPORT STATION-WIDE BACKGROUND INVESTIGATION FINDINGS

The purpose of the background characterization is to assess existing conditions at NAVSTA Mayport, including ambient concentrations of various chemicals in the environment. The characterization included determining the identity of a constituent and its concentration as either naturally occurring or resulting from manmade sources unrelated to waste disposal activities. These data are used to assess whether similar constituents found at an SWMU are related to natural conditions or the deposition of hazardous substances. The background characterization included collection of surface and subsurface soil, surface water, sediment, and groundwater samples. Information to assess the spatial variability of geologic and hydrogeologic conditions at NAVSTA Mayport was also collected. The following subsections present spatial variations on subsurface geologic and hydrologic conditions and the results of the chemical analyses of the background samples.

3.1 GEOLOGY. A total of 135 borings has been drilled at NAVSTA Mayport for various investigative activities (Appendix A). Logs of these borings provide data with which to define the geology and hydrology of the Miocene to Holocene age deposits and the shallow surficial aquifer. Geologic information generated by this process was also used to construct geologic cross-section traverses. The location of five cross-section traverses depicting subsurface geologic conditions are presented on Figure 3-1. A key to the lithologic symbols used in the cross sections is provided in Figure 3-2. These cross sections (Figures 3-3 through 3-7) reveal three separate geologic units. The uppermost unit consists of a surficial deposit of material dredged from the Mayport Turning Basin and the St. Johns River. Beneath the surficial dredge material, a uniform, poorly graded, well sorted, sand with thin layers of a very plastic to dark-grey silty clay is found. This sand unit, termed in the cross section as undifferentiated post-Hawthorn deposits, grades with depth into the third unit, the Coosawhatchie Formation of the upper Hawthorn Group (Scott, 1988). The following provides a more detailed description of the three geologic units encountered beneath NAVSTA Mayport.

Dredge Material. Prior to construction of NAVSTA Mayport, low-lying areas such as marshes and sand flats were predominant in the interior area of the station (Figures 1-3 and 1-4). Along the Atlantic shore and the banks of the St. Johns River, beach and river bank sands predominated at the surface. Material dredged from Ribault Bay and the St. Johns River to construct the Mayport Turning Basin was used to fill low-lying areas during the initial construction and later expansion of the station (see Figure 1-4). The filling of the low-lying areas with dredge material developed areas with suitable load bearing capacities to allow construction.

The dredge material now comprises the majority of the surficial material found in the interior areas of the station. The dredge material typically consists of fine-grained, well sorted sands and/or marine shell fragments. In several localities the coarse shell fragments are the dominant material and typically appear as shell (mollusk) hash seams or layers. A more detailed description of the dredge material is provided in the Technical Memorandum, Background Characterization Activities report for NAVSTA Mayport (ABB-ES, 1993d).

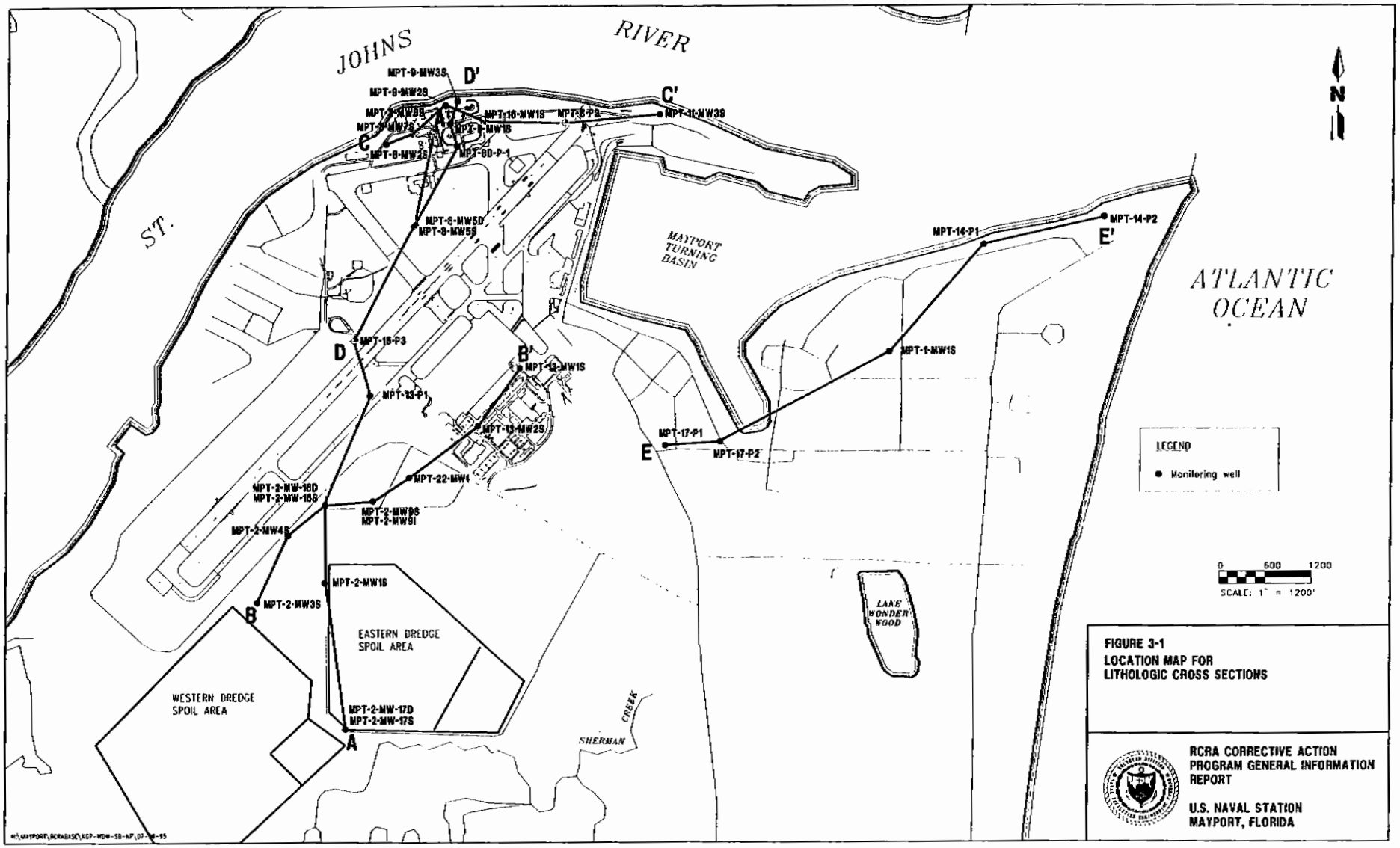
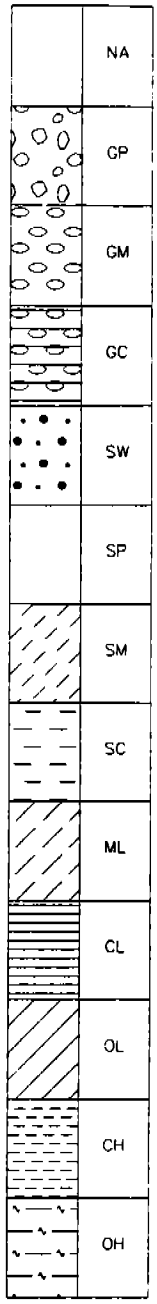


FIGURE 3-1
LOCATION MAP FOR
LITHOLOGIC CROSS SECTIONS

RCRA CORRECTIVE ACTION
PROGRAM GENERAL INFORMATION
REPORT

U.S. NAVAL STATION
MAYPORT, FLORIDA



NA	Crushed limestone, asphalt pavement
GP	Poorly-graded gravel, gravel-sand mixtures, little or no fines, shell hash
GM	Gravel-sand-silt mixtures
GC	Clayey gravel gravel-sand-clay mixtures
SW	Well-graded sand, gravelly sand, little or no fines
SP	Poorly-graded sand, gravelly sand, little or no fines
SM	Silty sand, Sand-silt mixtures
SC	Clayey sand, Sand-clay mixtures
ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or clayey silt with slight plasticity
CL	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay, silty clay, lean clay
OL	Organic silt and organic silty clay of low plasticity
CH	Inorganic clay of high Plasticity, fat clay
OH	Organic clay of medium to high plasticity, organic silt

Source: USCS.

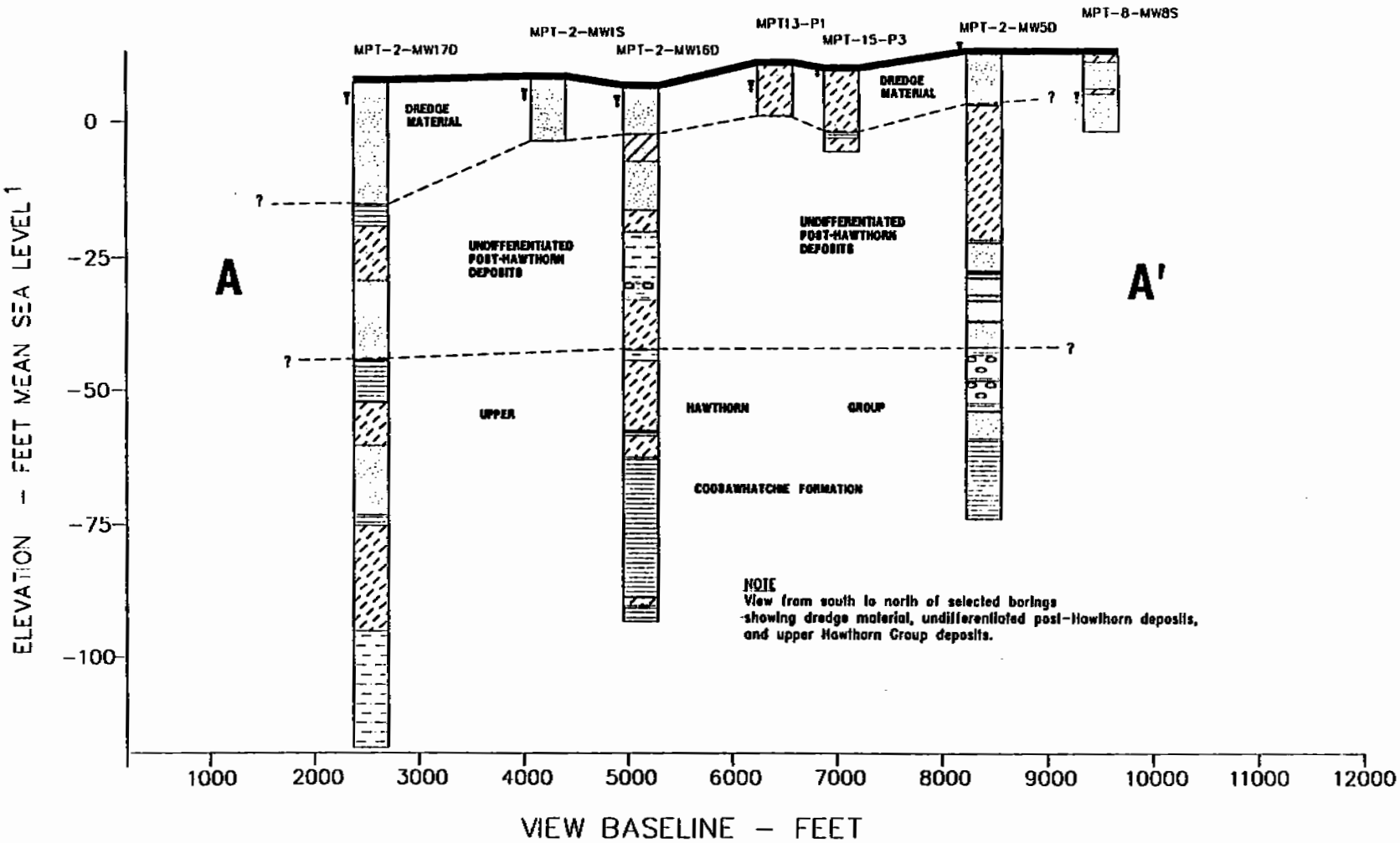
Water table elevation location

FIGURE 3-2
KEY TO LITHOLOGIC SYMBOLS

H:\MAYPORT\RCRASECT\MAH-WDW-GLC-NP\7-6-95

RCRA CORRECTIVE ACTION PROGRAM GENERAL INFORMATION REPORT

U.S. NAVAL STATION MAYPORT, FLORIDA



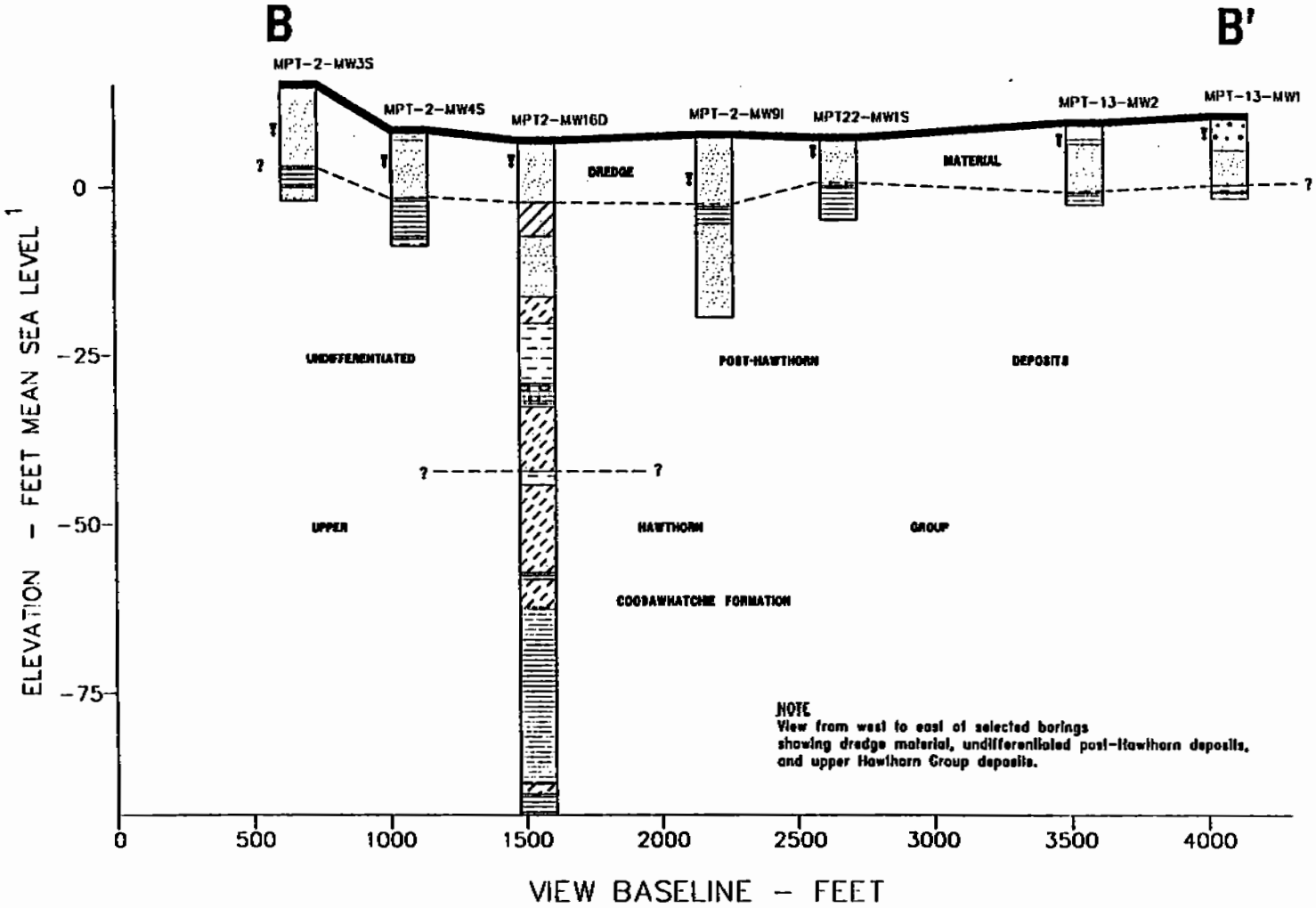
Note:
1 = National Geodetic Vertical Datum, 1929.

FIGURE 3-3
CROSS SECTION A-A',
GROUP I AND GROUP II SWMUs

RCRA CORRECTIVE ACTION PROGRAM GENERAL INFORMATION REPORT

U.S. NAVAL STATION MAYPORT FLORIDA

RCRA/FCT.DWG/KP-WDW-GIC-SB/8-20-95



Note:
1 = National Geodetic Vertical Datum, 1929.

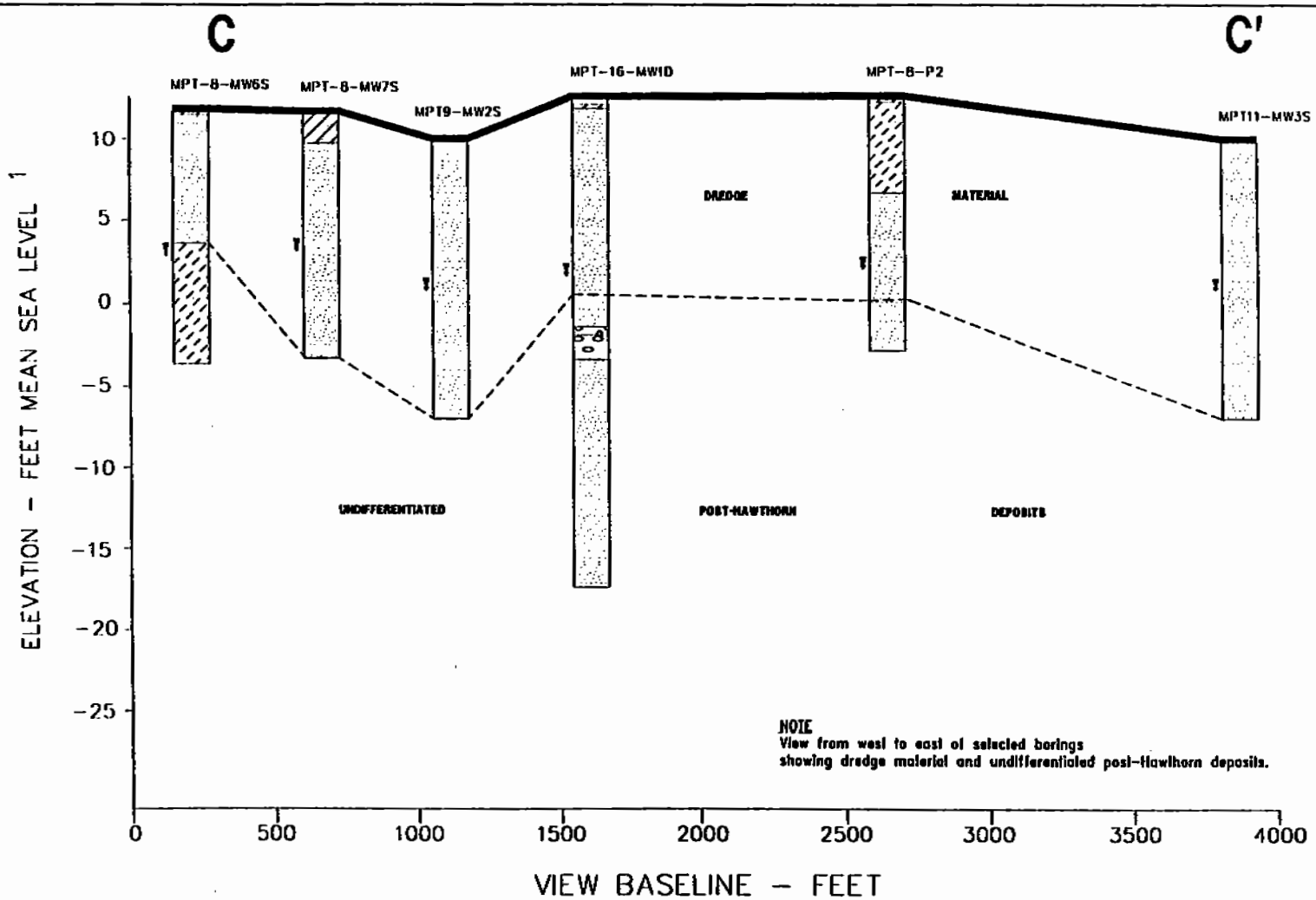
FIGURE 3-4
CROSS SECTION B-B',
GROUP I SWMUs

RCRA CORRECTIVE ACTION PROGRAM GENERAL INFORMATION REPORT

U.S. NAVAL STATION MAYPORT FLORIDA

RCRASECT.DWG/KP-WDW-SD/06-20-95

MPT_RCRA.GIR
ASW.07.95



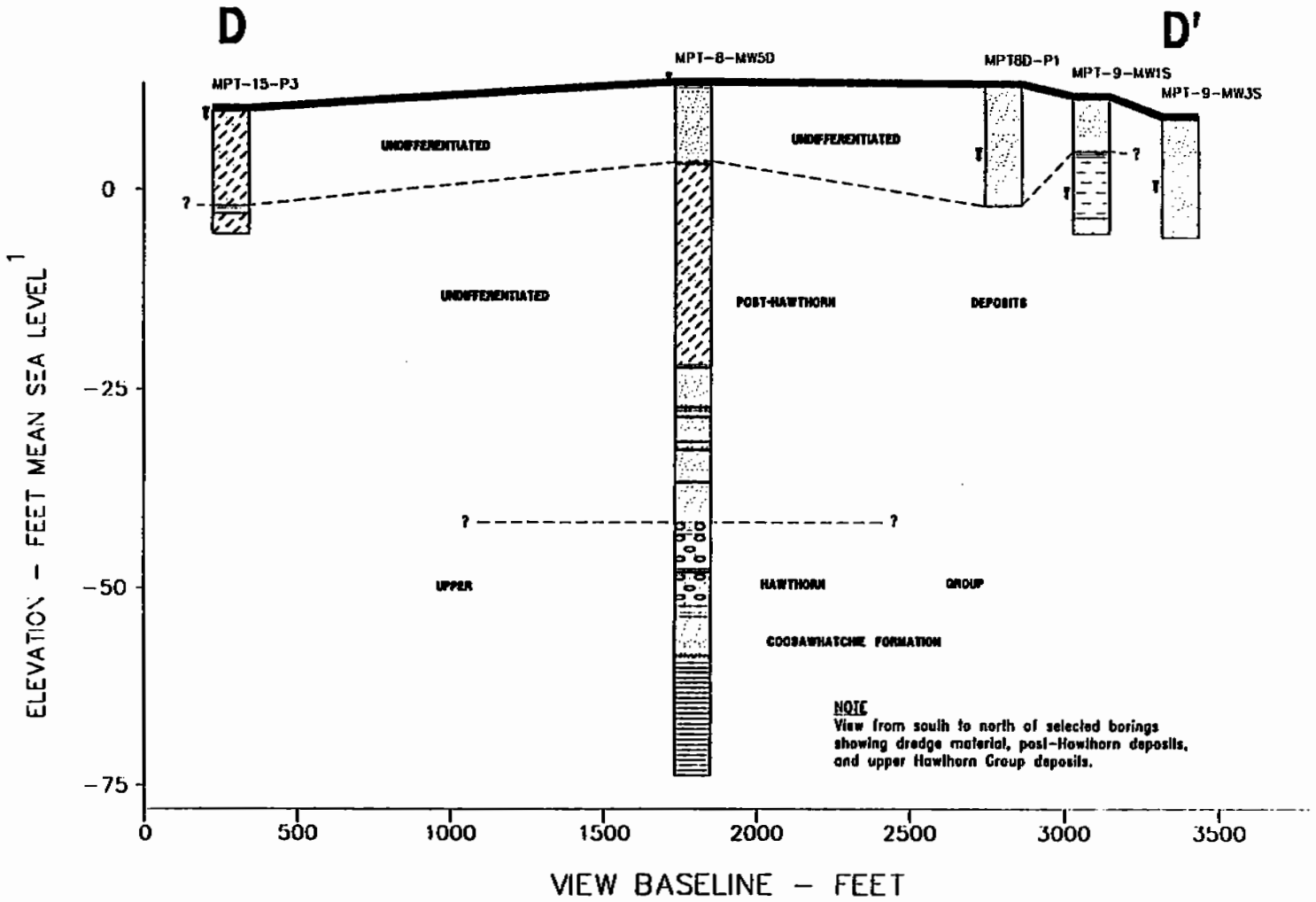
Note:
1 = National Geodetic Vertical Datum, 1929.

RCRASECT.DWG/KP-WDW-SD/06-20-95

FIGURE 3-5
CROSS SECTION C-C',
GROUP II SWMUs

RCRA CORRECTIVE ACTION PROGRAM GENERAL INFORMATION REPORT

U.S. NAVAL STATION MAYPORT FLORIDA

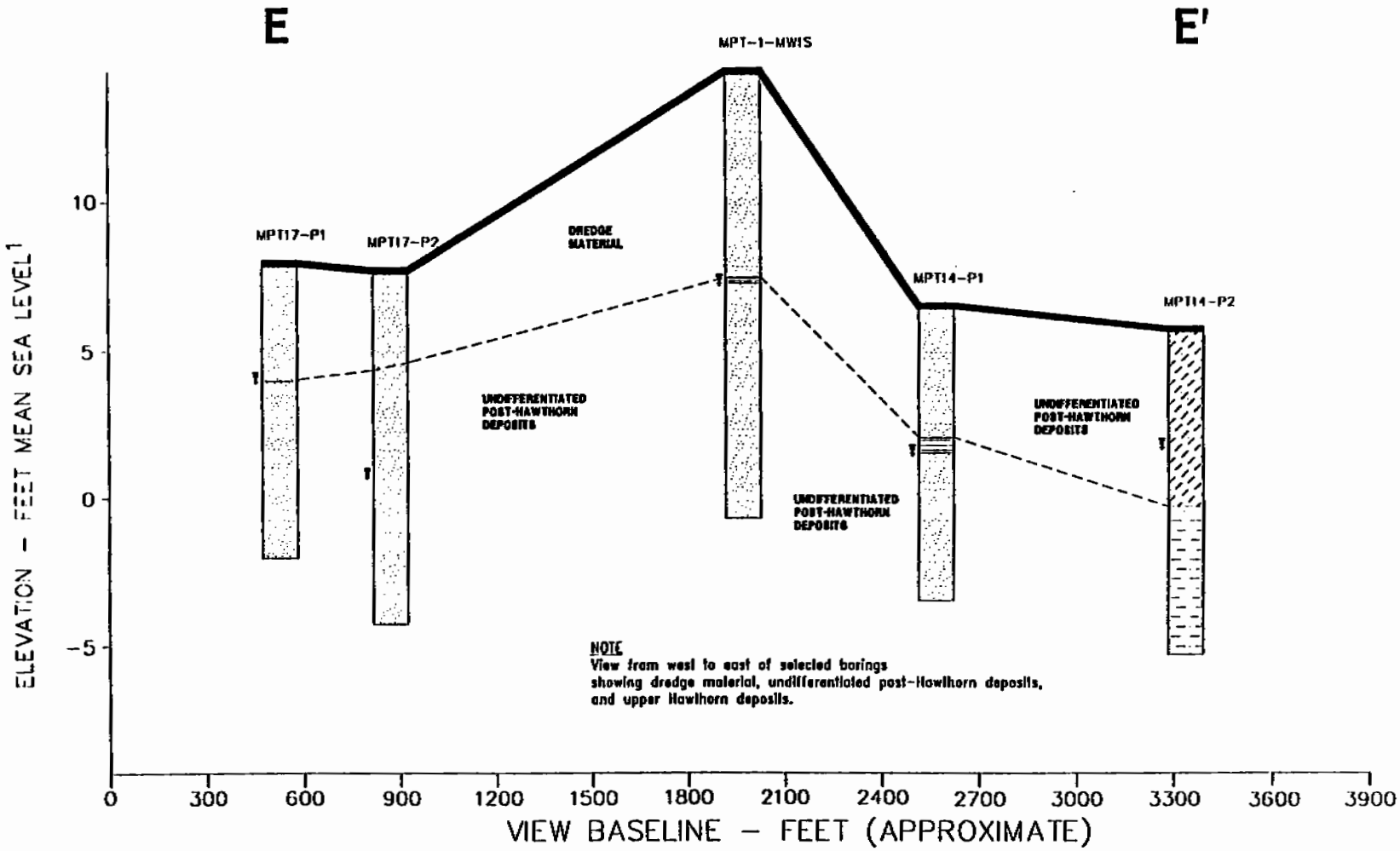


Note:
1 = National Geodetic Vertical Datum, 1929.

FIGURE 3-6
CROSS SECTION D-D',
GROUP II SWMUs

RCRA CORRECTIVE ACTION PROGRAM GENERAL INFORMATION REPORT

U.S. NAVAL STATION MAYPORT FLORIDA



Note:
1 = National Geodetic Vertical Datum, 1929.

FIGURE 3-7
CROSS SECTION E-E',
GROUP III SWMUs

RCRA CORRECTIVE ACTION PROGRAM GENERAL INFORMATION REPORT

U.S. NAVAL STATION MAYPORT FLORIDA

RCRASECT.DWG/KP-WDW-SB/8-20-95

Undifferentiated Post-Hawthorn Deposits. The second unit, undifferentiated post-Hawthorn deposits (Scott, 1988), consists of fairly uniform, well sorted, poorly graded, very fine-grained sand, which typically contains minor amounts of fines consisting of silt and clay and frequently has numerous shell fragments and subrounded pea-size gravel (Figures 3-3 through 3-7). The second unit is likely the product of Miocene to Holocene fluvial deposition and the erosion and redeposition of Hawthorn Group sediments and does not appear to be laterally uniform. River depositional processes have produced a highly variable set of lithologic units that are horizontally and vertically anisotropic throughout the study area. Color ranges from tan to light grey. Where color change occurs, the change is typically gradational over several feet.

The second unit frequently includes a very soft grey to dark-grey silty clay layer 3 to 7 feet thick that likely represents recent estuarine deposition (silt, clay, and organic material of marsh deposition). The silty clay layer is typically restricted to the interior of the station and is not commonly found along the beach or banks of the St. Johns River.

Upper Hawthorn Group. Three deep borings (MPT-2-MW16D, MPT-2-MW17D, and MPT-8-MW5D) have encountered and were terminated in the Coosawhatchie Formation of the Hawthorn Group (Figures 3-3, 3-4, and 3-6). Each of these deep borings also encountered the dredge materials and the undifferentiated post-Hawthorn deposits as described previously. Below the undifferentiated post-Hawthorn deposits the three borings encountered a mixture of very fine- to fine-grained, tan-brown to gray sand with numerous shell fragments. Within this sand at boring locations MPT-2-MW16D and MPT-2-MW17D, seams and layers of clay varied in thickness from inches to a maximum of several feet. This zone was interpreted to be the confining units typical of the Hawthorn Group located in Duval County (Leve, 1966). These localized clay sediments form a "leaky" confining zone for the secondary aquifer.

Because the undifferentiated post-Hawthorn deposits include eroded and redeposited sediments from the upper Hawthorn Group, it was not possible to determine exactly where the upper Hawthorn Group was encountered. Various factors, such as lithologic description and lithologic resistance to split-spoon sampling, indicate that the upper Hawthorn Group was encountered in both borings somewhere between 40 and 55 feet bls. The upper Hawthorn Group sediments in these borings primarily consist of fine- to medium-grained, tan to greenish-gray sand. This sand typically contains black phosphatic nodules and/or lithic limestone fragments. In addition, these shell fragments were similar to those found in the undifferentiated post-Hawthorn deposits. Interbedded within the upper Hawthorn Group sand is sandy clay, typically gray or olive green in color. This sandy clay frequently contains zones rich in limestone fragments.

3.2 HYDROGEOLOGY. The objectives of the hydrogeologic investigations conducted for the RFI at NAVSTA Mayport were as follows: (1) evaluate the extent and magnitude the influence tidal fluctuations have on the surficial aquifer, (2) estimate the hydraulic gradient and hydraulic conductivities of the shallow surficial aquifer, (3) characterize the potentiometric surface of the shallow surficial aquifer, and (4) compute the linear pore velocity of groundwater flow in the shallow surficial aquifer. The following subsections on monitoring wells and piezometers, tidal influence, physical characteristics of soil, hydraulic conductivities, the potentiometric water surfaces, and groundwater flow velocity discuss these four objectives.

APPENDIX D

LABORATORY ANALYTICAL RESULTS

EVENT 1

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

03/24/10

Technical Report for

Tetra Tech NUS

NAUSTA Mayport

112G00871

Accutest Job Number: F71934

Sampling Date: 03/08/10

Report to:

Tetra-Tech, Inc.
661 Andersen Drive Foster Plaza 7
Pittsburgh, PA 15220
tobrena.skeen@tetratech.com

ATTN: Tobrena Skeen

Total number of pages in report: **86**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

Tetra Tech NUS

Job No: F71934

NAUSTA Mayport
Project No: 112G00871

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F71934-1	03/08/10	08:40	KW	03/10/10	AQ	Ground Water	MPT-AOCE-GW-MWO5-030810
F71934-2	03/08/10	09:30	KW	03/10/10	AQ	Ground Water	MPT-AOCE-GW-MWO1-030810
F71934-3	03/08/10	10:15	KW	03/10/10	AQ	Ground Water	MPT-AOCE-GW-MWO6-030810
F71934-3D	03/08/10	10:15	KW	03/10/10	AQ	Water Dup/MSD	MPT-AOCE-GW-MWO6-030810
F71934-3S	03/08/10	10:15	KW	03/10/10	AQ	Water Matrix Spike	MPT-AOCE-GW-MWO6-030810
F71934-4	03/08/10	11:18	KW	03/10/10	AQ	Ground Water	MPT-AOCE-GW-MWO2-030810
F71934-5	03/08/10	12:10	KW	03/10/10	AQ	Ground Water	MPT-AOCE-GW-MWO4-030810

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech NUS **Job No:** F71934

Site: NAUSTA Mayport **Report Date:** 3/19/2010 4:39:30 PM

5 Samples were collected on 03/08/2010 and were received at Accutest SE on 03/10/2010 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F71934. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GC by Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP32170

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F71934-3MS, F71934-3MSD were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: March 19, 2010

Ellen Pampel, Inorganic QA (signature on file)

Friday, March 19, 2010

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-GW-MWO5-030810		
Lab Sample ID:	F71934-1	**Date Sampled:**	03/08/10
Matrix:	AQ - Ground Water	**Date Received:**	03/10/10
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAUSTA Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ64637.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		38-122%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-GW-MWO1-030810		
Lab Sample ID:	F71934-2	**Date Sampled:**	03/08/10
Matrix:	AQ - Ground Water	**Date Received:**	03/10/10
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAUSTA Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ64638.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		38-122%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-GW-MWO6-030810		
Lab Sample ID:	F71934-3	**Date Sampled:**	03/08/10
Matrix:	AQ - Ground Water	**Date Received:**	03/10/10
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAUSTA Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ64639.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		38-122%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-GW-MWO2-030810		
Lab Sample ID:	F71934-4	**Date Sampled:**	03/08/10
Matrix:	AQ - Ground Water	**Date Received:**	03/10/10
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAUSTA Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ64642.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		38-122%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-GW-MWO4-030810		
Lab Sample ID:	F71934-5	**Date Sampled:**	03/08/10
Matrix:	AQ - Ground Water	**Date Received:**	03/10/10
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAUSTA Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ64645.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		38-122%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 0968 F71934 PAGE ___ OF ___

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00871	NAVSTA MAYPORT	GREG ROOF	904-636-6125	ACCUTEST
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
K. Wilt		KEVIN WEICHERT	904-636-6125	4405 VINELAND RD. SUITE C-15
		CARRIER/WAYBILL NUMBER		CITY, STATE
		COURRIER PICK UP		ORLANDO, FL, 32811

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: H2SO4

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: TRPH-FL-PRO							COMMENTS
1	3/8	0840	MPT-AOCE-GW-MW05-030810				GW	G	2	2							-COOL TO 4°C
2	3/8	0930	MPT-AOCE-GW-MW01-030810				GW	G	2	2							
3	3/8	1015	MPT-AOCE-GW-MW06-030810				GW	G	6	6							-MS/MSD
4	3/8	1118	MPT-AOCE-GW-MW02-030810				GW	G	2	2							
5	3/8	1210	MPT-AOCE-GW-MW04-030810				GW	G	2	2							

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY K. Wilt	3-9-10	1207	1. RECEIVED BY Accutest	3-9-10	1208
2. RELINQUISHED BY Accutest	3-9-10	1350	2. RECEIVED BY Accutest	03-10-10	0820
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS 2.4 1.6

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 4/02R
FORM NO. TtNUS-001

F71934: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F71934 CLIENT: TetraTech PROJECT: 112600871

DATE/TIME RECEIVED: 031010 0800 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

NUMBER OR LAB FILTERED METALS ? Ø

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR Ø
- [ ] OBSERVED TEMPS: 2.4 1.6
- [ ] CORRECTED TEMPS: 2.4 1.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE ET 031010 REVIEWER SIGNATURE/DATE RE 3-10-10

NF 10/09 RECEIPT CONFIRMATION 100609 (2).xls

F71934: Chain of Custody
Page 2 of 2

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32170-MB	IJ64636.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F71934-1, F71934-2, F71934-3, F71934-4, F71934-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	94%	38-122%

Method Blank Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32170-MB	IJ64681.D	1	03/17/10	FEA	03/15/10	OP32170	GIJ2168

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F71934-1, F71934-2, F71934-3, F71934-4, F71934-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	76%	38-122%

Blank Spike Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32170-BS	IJ64635.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F71934-1, F71934-2, F71934-3, F71934-4, F71934-5

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C8-C40)	0.85	0.787	93	54-110

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	90%	38-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32170-MS	IJ64640.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167
OP32170-MSD	IJ64641.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167
F71934-3	IJ64639.D	1	03/16/10	FEA	03/15/10	OP32170	GIJ2167

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F71934-1, F71934-2, F71934-3, F71934-4, F71934-5

CAS No.	Compound	F71934-3 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C8-C40)	0.24	U	1.63	1.45	89	1.38	84	5	54-110/28

CAS No.	Surrogate Recoveries	MS	MSD	F71934-3	Limits
84-15-1	o-Terphenyl	97%	95%	84%	38-122%

Semivolatile Surrogate Recovery Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Method: FLORIDA-PRO **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F71934-1	IJ64637.D	87.0
F71934-2	IJ64638.D	99.0
F71934-3	IJ64639.D	84.0
F71934-4	IJ64642.D	85.0
F71934-5	IJ64645.D	83.0
OP32170-BS	IJ64635.D	90.0
OP32170-MB	IJ64636.D	94.0
OP32170-MB	IJ64681.D	76.0
OP32170-MS	IJ64640.D	97.0
OP32170-MSD	IJ64641.D	95.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	38-122%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Check Std:	GIJ2167-CC2164	**Injection Date:**	03/16/10
Lab File ID:	IJ64631.D	**Injection Time:**	15:53
Instrument ID:	GCIJ	**Method:**	FLORIDA-PRO

	S1 [a] **RT**
Check Std	5.71

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
ZZZZZZ	IJ64633.D	03/16/10	16:37	0.00
ZZZZZZ	IJ64634.D	03/16/10	17:00	5.70
OP32170-BS	IJ64635.D	03/16/10	17:22	5.71
OP32170-MB	IJ64636.D	03/16/10	17:44	5.71
F71934-1	IJ64637.D	03/16/10	18:06	5.71
F71934-2	IJ64638.D	03/16/10	18:28	5.71
F71934-3	IJ64639.D	03/16/10	18:51	5.71
OP32170-MS	IJ64640.D	03/16/10	19:13	5.71
OP32170-MSD	IJ64641.D	03/16/10	19:35	5.71
F71934-4	IJ64642.D	03/16/10	19:57	5.71

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Check Std:	GIJ2167-CC2164	**Injection Date:**	03/16/10
Lab File ID:	IJ64643.D	**Injection Time:**	20:19
Instrument ID:	GCIJ	**Method:**	FLORIDA-PRO

	S1 [a] RT
Check Std	5.71

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
F71934-5	IJ64645.D	03/16/10	21:04	5.71
ZZZZZZ	IJ64646.D	03/16/10	21:26	5.71
ZZZZZZ	IJ64647.D	03/16/10	21:48	5.71
ZZZZZZ	IJ64648.D	03/16/10	22:10	5.71
ZZZZZZ	IJ64649.D	03/16/10	22:32	5.71
ZZZZZZ	IJ64650.D	03/16/10	22:54	5.71
ZZZZZZ	IJ64651.D	03/16/10	23:16	5.71
ZZZZZZ	IJ64652.D	03/16/10	23:39	5.71
ZZZZZZ	IJ64653.D	03/17/10	00:01	5.71
ZZZZZZ	IJ64654.D	03/17/10	00:23	5.71

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Check Std:	GIJ2168-CC2164	**Injection Date:**	03/17/10
Lab File ID:	IJ64680.D	**Injection Time:**	17:16
Instrument ID:	GCIJ	**Method:**	FLORIDA-PRO

	S1 [a] **RT**
Check Std	5.70

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
OP32170-MB	IJ64681.D	03/17/10	17:38	5.70
ZZZZZZ	IJ64682.D	03/17/10	18:01	5.70
GIJ2168-ECC2164	IJ64683.D	03/17/10	18:23	5.70

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport

Sample: GIJ2164-ICC2164
Lab FileID: IJ64355.D

Response Factor Report FID 1

Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration

Calibration Files
255 =IJ64352.D 340 =IJ64353.D 680 =IJ64354.D 1360=IJ64355.D
2040=IJ64356.D 2720=IJ64357.D 3400=IJ64358.D

Compound	255	340	680	1360	2040	2720	3400	Avg	%RSD
1)S O-TERPHENYL	3.223	3.265	3.326	3.480	3.263	3.276	3.528	3.337 E4	3.55
2)H TPH (C8-C40)	3.137	3.042	2.981	3.082	2.869	2.877	3.089	3.011 E4	3.51

(#) = Out of Range

FL_PRO_R.M Wed Mar 10 11:34:49 2010

Initial Calibration Verification

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport
Sample: GIJ2164-ICV2164
Lab FileID: IJ64359.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64359.D          Vial: 10
Acq On    :  9 Mar 2010   7:38 pm                   Operator: enoca
Sample    : icv2164-1360                            Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%

       Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   O-TERPHENYL                        ----------NA----------
 2 H   TPH (C8-C40)          1360.000 1338.485      1.6   96   0.00    2.49-12.86
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    IJ64355.D  FL_PRO_R.M       Wed Mar 10 11:34:26 2010
```

Continuing Calibration Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport
Sample: GIJ2167-CC2164
Lab FileID: IJ64631.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64631.D          Vial: 58
Acq On    : 16 Mar 2010   3:53 pm                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32168,gij2167,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%

       Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   O-TERPHENYL             40.000  39.720      0.7   95   0.00    5.60- 5.80
 2 H   TPH (C8-C40)          1360.000 1450.912     -6.7  104   0.00    2.44-12.85
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    IJ64355.D  FL_PRO_R.M       Wed Mar 17 14:45:16 2010
```

Continuing Calibration Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport
Sample: GIJ2167-CC2164
Lab FileID: IJ64643.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64643.D          Vial: 80
Acq On    : 16 Mar 2010   8:19 pm                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32170,gij2167,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%

       Compound                Amount  Calc.    %Drift Area% Dev(min)RT Window
 ---------------------------------------------------------------------------
 1 S   O-TERPHENYL             40.000  39.575      1.1   95   0.00    5.60- 5.80
 2 H   TPH (C8-C40)          1360.000 1281.709      5.8   92   0.00    2.44-12.85
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    IJ64355.D  FL_PRO_R.M       Wed Mar 17 14:45:16 2010
```

Continuing Calibration Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport
Sample: GIJ2167-CC2164
Lab FileID: IJ64655.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64655.D          Vial: 80
Acq On    : 17 Mar 2010  12:45 am                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32170,gij2167,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	40.000	39.845	0.4	96	0.00	5.60- 5.80
2 H	TPH (C8-C40)	1360.000	1279.856	5.9	92	0.00	2.44-12.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ64355.D FL_PRO_R.M Wed Mar 17 15:44:12 2010

Continuing Calibration Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport
Sample: GIJ2168-CC2164
Lab FileID: IJ64680.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64680.D          Vial: 13
Acq On    : 17 Mar 2010   5:16 pm                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32150,gij2168,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	40.000	36.847	7.9	88	0.00	5.60- 5.80
2 H	TPH (C8-C40)	1360.000	1306.754	3.9	94	0.00	2.44-12.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ64355.D FL_PRO_R.M Mon Mar 22 15:03:19 2010

Continuing Calibration Summary

Job Number: F71934
Account: TETRPAPT Tetra Tech NUS
Project: NAUSTA Mayport
Sample: GIJ2168-ECC2164
Lab FileID: IJ64683.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64683.D          Vial: 13
Acq On    : 17 Mar 2010   6:23 pm                   Operator: enoca
Sample    : ecc2164-1360                            Inst    : FID 1
Misc      : op32170,gij2168,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	40.000	37.577	6.1	90	0.00	5.60- 5.80
2 H	TPH (C8-C40)	1360.000	1328.143	2.3	95	0.00	2.44-12.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ64355.D FL_PRO_R.M Mon Mar 22 15:03:19 2010

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64637.D          Vial: 74
Acq On    : 16 Mar 2010   6:06 pm                   Operator: enoca
Sample    : f71934-1                                Inst    : FID 1
Misc      : op32170,gij2167,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17  8:13 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID

     Compound                    R.T.       Response    Conc Units
---------------------------------------------------------------------------

System Monitoring Compounds
 1) S   O-TERPHENYL                5.71        1447299   43.367 PPM
Spiked Amount     50.000   Range  38 - 122    Recovery   =   86.73%

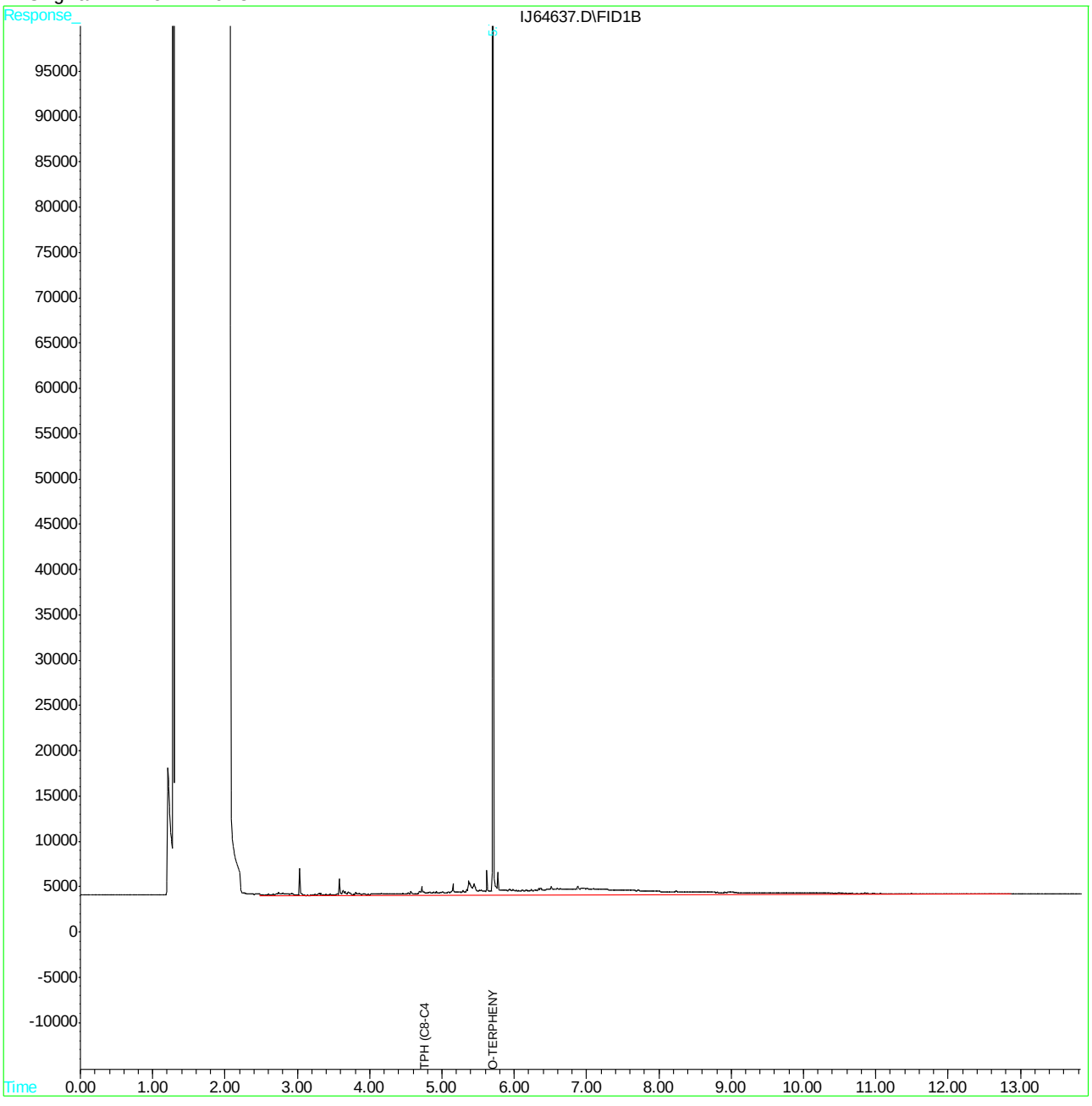
Target Compounds
 2) H   TPH (C8-C40)               4.77        1686061   55.994 PPM
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64637.D Vial: 74
Acq On : 16 Mar 2010 6:06 pm Operator: enoca
Sample : f71934-1 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 8:13 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64638.D          Vial: 75
Acq On    : 16 Mar 2010   6:28 pm                   Operator: enoca
Sample    : f71934-2                                Inst    : FID 1
Misc      : op32170,gij2167,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17  8:13 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1654807	49.585 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery =	99.17%
Target Compounds			
2) H TPH (C8-C40)	4.77	1978935	65.721 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

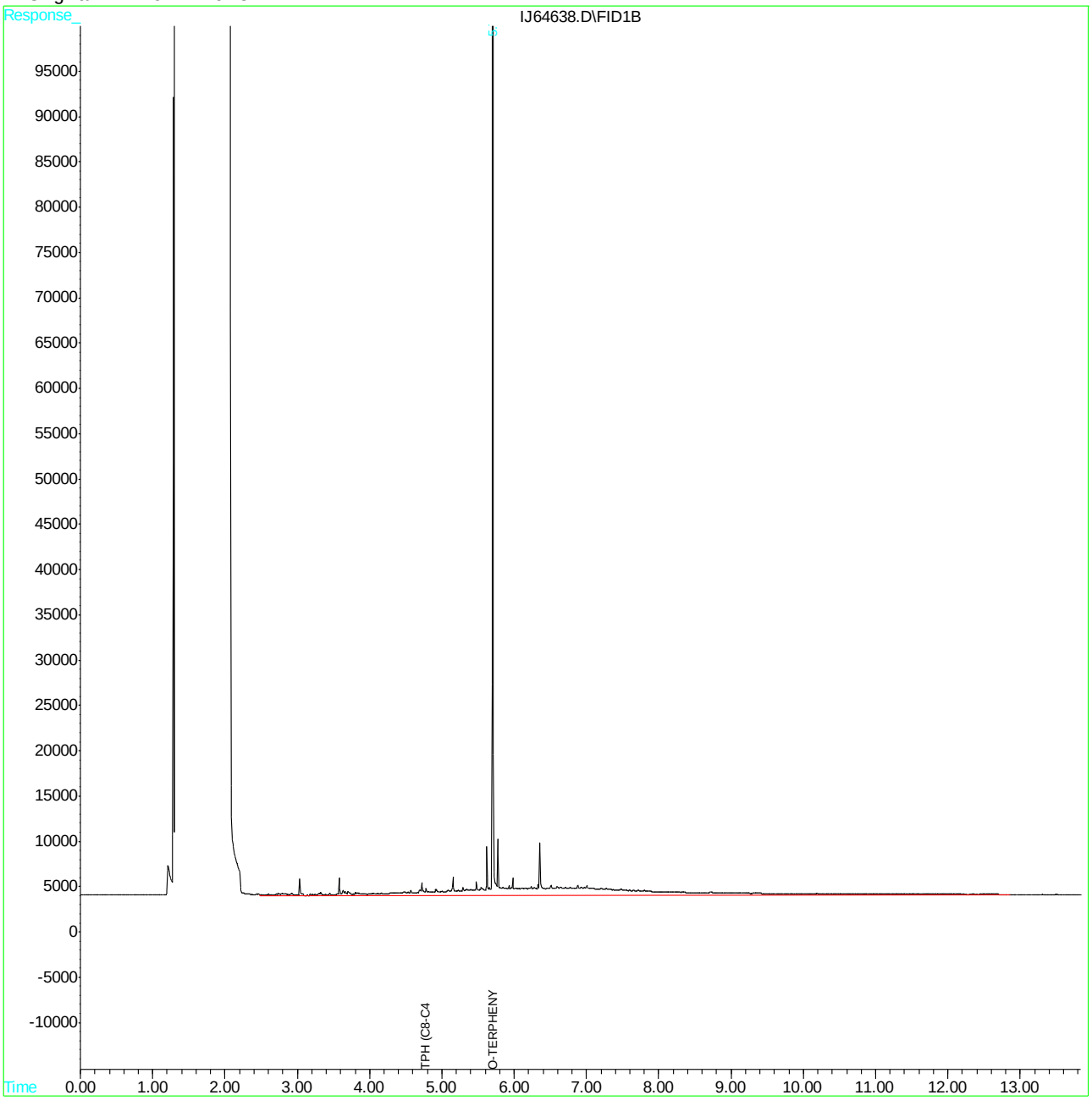
IJ64638.D FL_PRO_R.M Wed Mar 17 14:39:37 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64638.D Vial: 75
Acq On : 16 Mar 2010 6:28 pm Operator: enoca
Sample : f71934-2 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 8:13 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64639.D Vial: 76
Acq On : 16 Mar 2010 6:51 pm Operator: enoca
Sample : f71934-3 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 8:13 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1406926	42.157 PPM
Spiked Amount 50.000 Range 38 - 122 Recovery = 84.31%			
Target Compounds			
2) H TPH (C8-C40)	4.77	1877443	62.350 PPM

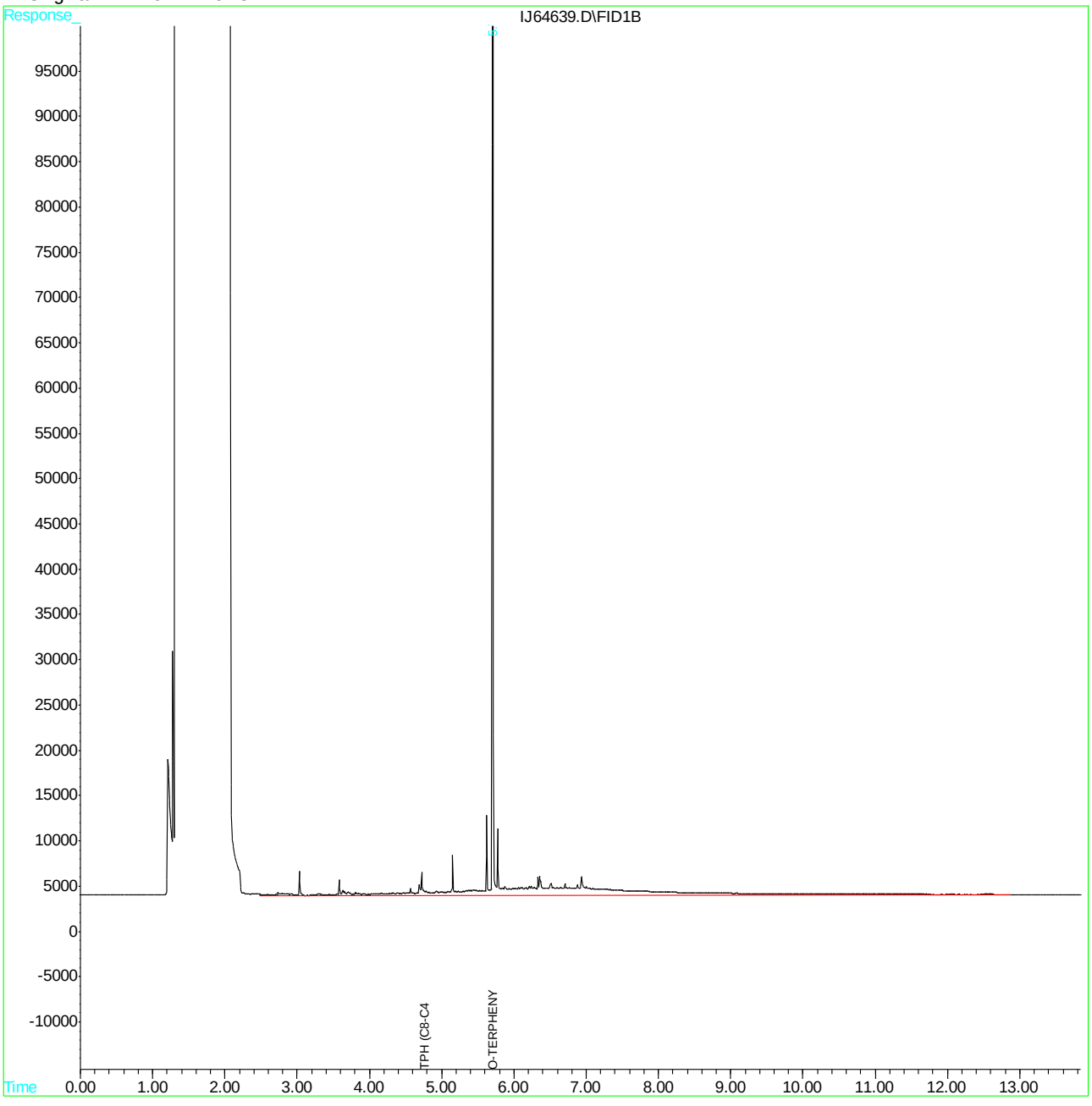
(f)=RT Delta > 1/2 Window (m)=manual int.
IJ64639.D FL_PRO_R.M Wed Mar 17 14:39:39 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64639.D Vial: 76
Acq On : 16 Mar 2010 6:51 pm Operator: enoca
Sample : f71934-3 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 8:13 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64642.D Vial: 79
Acq On : 16 Mar 2010 7:57 pm Operator: enoca
Sample : f71934-4 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 14:31 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1410672	42.270 PPM
Spiked Amount 50.000 Range 38 - 122 Recovery = 84.54%			
Target Compounds			
2) H TPH (C8-C40)	4.77	4106783	136.387 PPM

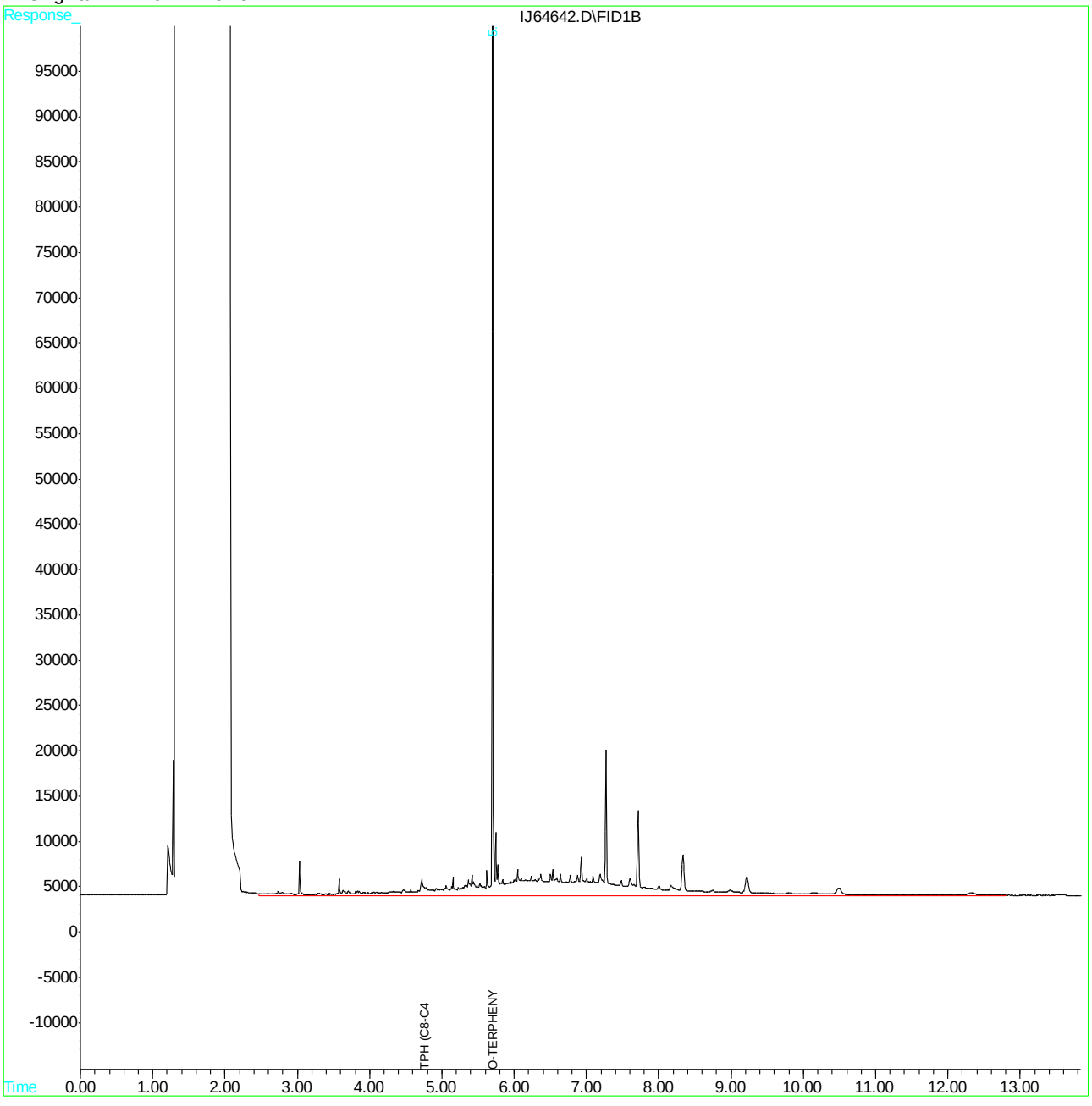
(f)=RT Delta > 1/2 Window (m)=manual int.
IJ64642.D FL_PRO_R.M Wed Mar 17 14:39:43 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64642.D Vial: 79
Acq On : 16 Mar 2010 7:57 pm Operator: enoca
Sample : f71934-4 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 14:31 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64645.D          Vial: 82
Acq On    : 16 Mar 2010   9:04 pm                   Operator: enoca
Sample    : f71934-5                                Inst    : FID 1
Misc      : op32170,gij2167,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17  8:13 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1392702	41.731 PPM
Spiked Amount 50.000 Range 38 - 122 Recovery = 83.46%			
Target Compounds			
2) H TPH (C8-C40)	4.77	2164518	71.884 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

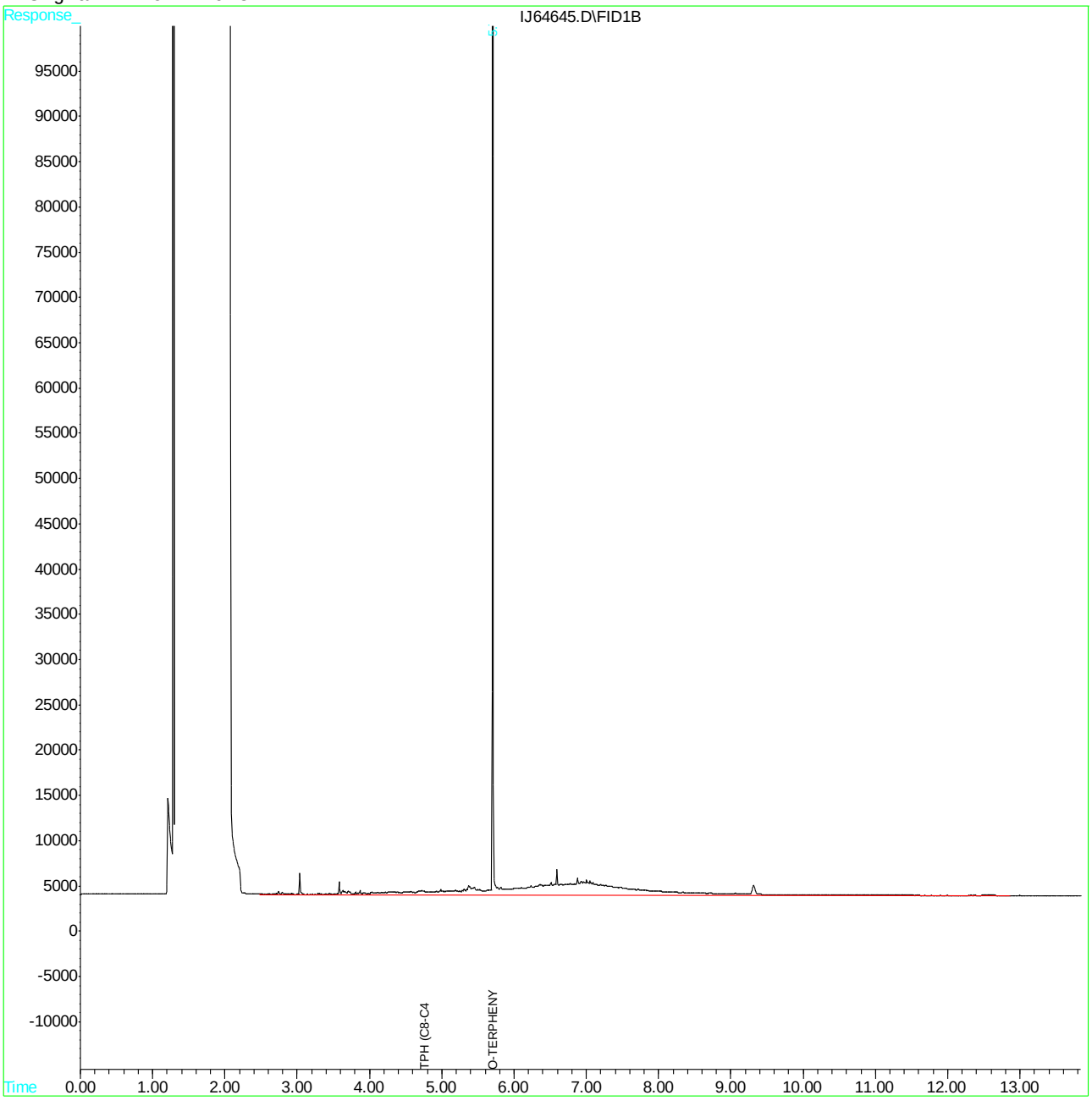
IJ64645.D FL_PRO_R.M Wed Mar 17 15:34:26 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64645.D Vial: 82
Acq On : 16 Mar 2010 9:04 pm Operator: enoca
Sample : f71934-5 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 8:13 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64636.D          Vial: 73
Acq On    : 16 Mar 2010   5:44 pm                   Operator: enoca
Sample    : op32170-mb                              Inst    : FID 1
Misc      : op32170,gij2167,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17  8:13 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1562897	46.831 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery =	93.66%
Target Compounds			
2) H TPH (C8-C40)	4.77	1422642	47.246 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

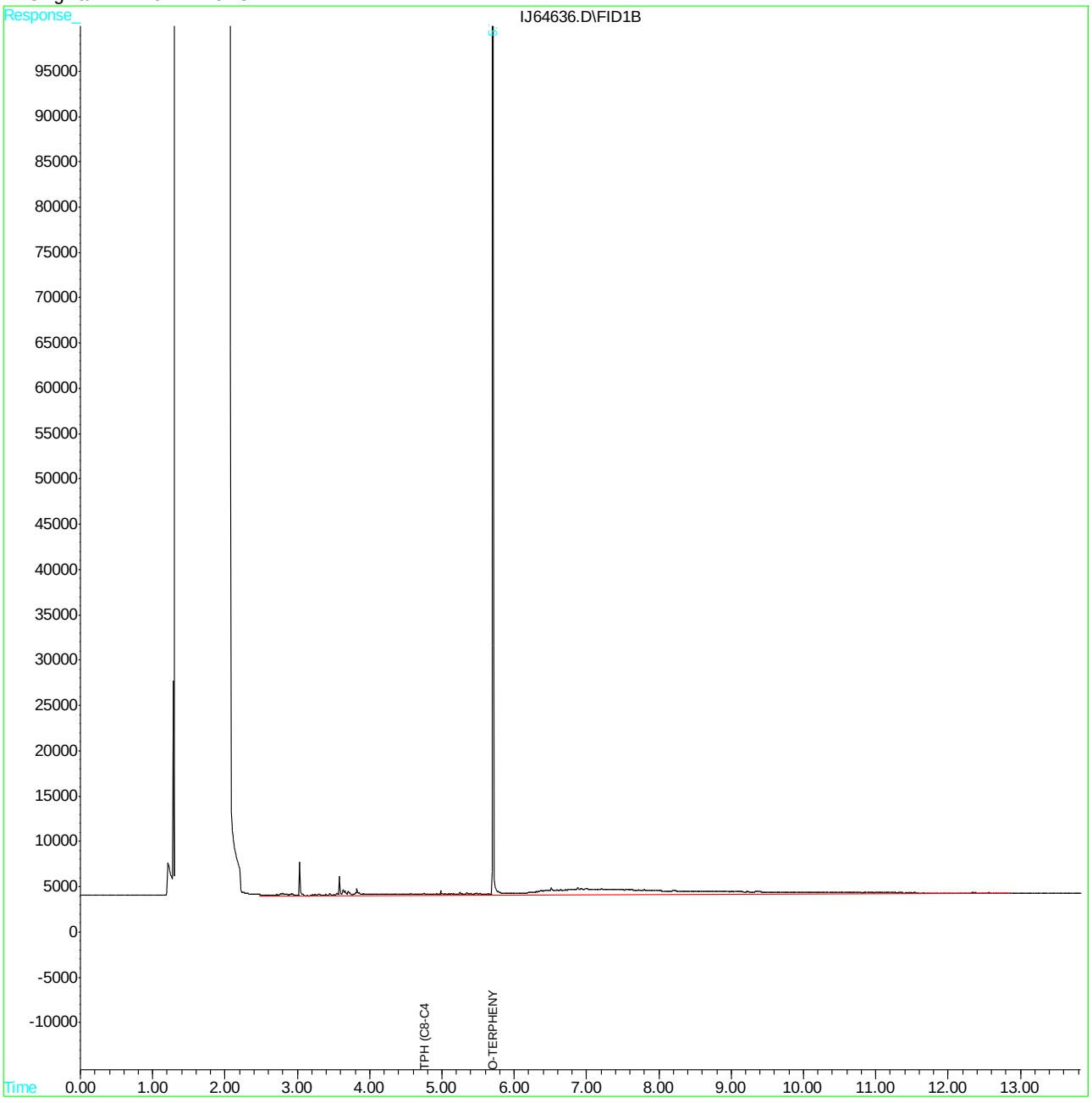
IJ64636.D FL_PRO_R.M Wed Mar 17 14:39:33 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64636.D Vial: 73
Acq On : 16 Mar 2010 5:44 pm Operator: enoca
Sample : op32170-mb Inst : FID 1
Misc : op32170,gij2167,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 8:13 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



ACCUTEST Laboratories F71934

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64681.D          Vial: 14
Acq On    : 17 Mar 2010   5:38 pm                   Operator: enoca
Sample    : op32170-mb                              Inst    : FID 1
Misc      : op32170,gij2168,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 18 12:24 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.70	1269932	38.052 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery =	76.10%
Target Compounds			
2) H TPH (C8-C40)	4.77	972430	32.295 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

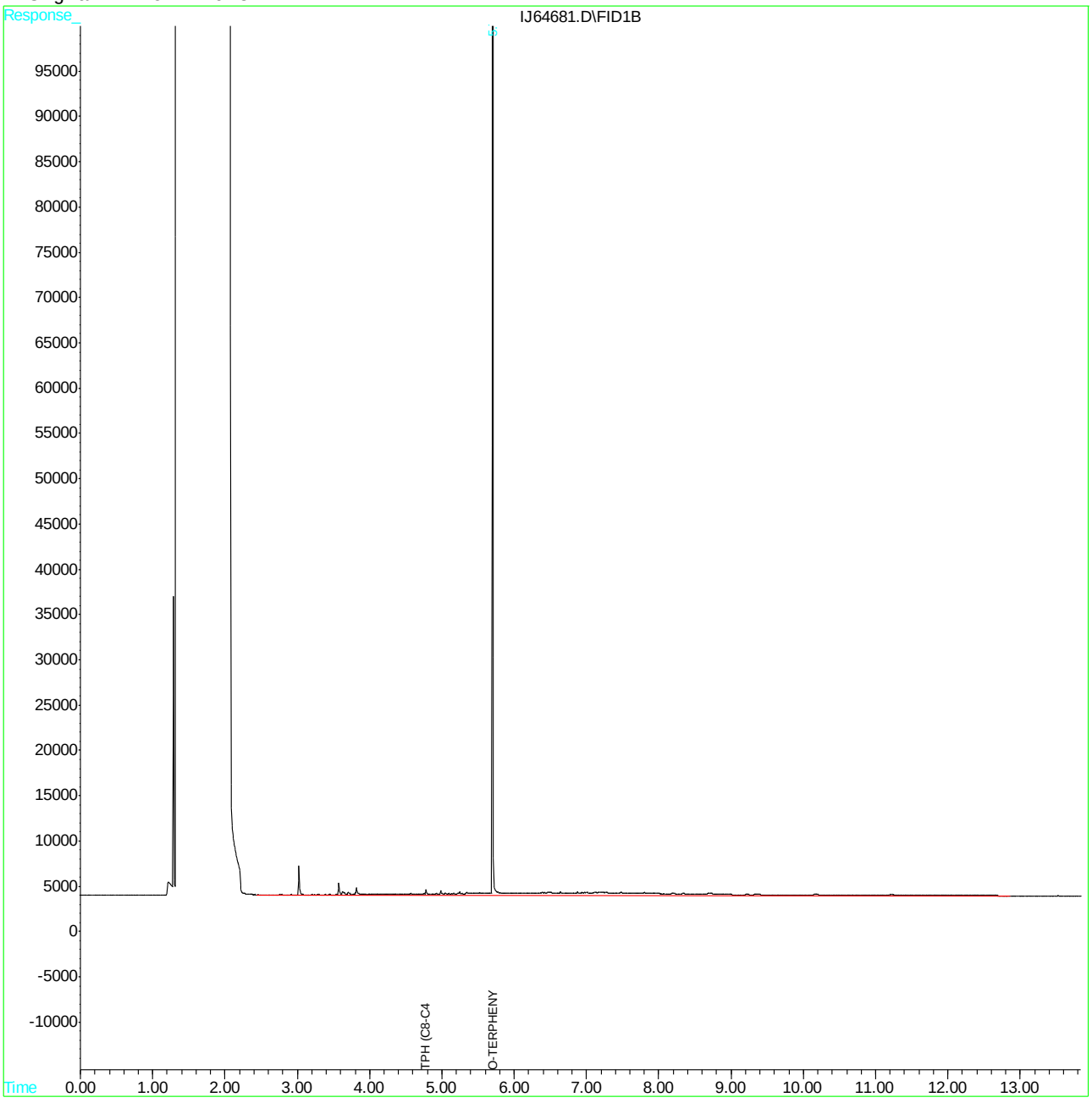
IJ64681.D FL_PRO_R.M Mon Mar 22 15:00:10 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64681.D Vial: 14
Acq On : 17 Mar 2010 5:38 pm Operator: enoca
Sample : op32170-mb Inst : FID 1
Misc : op32170,gij2168,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:24 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



ACCUTEST Laboratories F71934

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64635.D          Vial: 72
Acq On    : 16 Mar 2010   5:22 pm                   Operator: enoca
Sample    : op32170-bs                              Inst    : FID 1
Misc      : op32170,gij2167,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17 14:27 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1505758	45.119 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery = 90.24%	
Target Compounds			
2) H TPH (C8-C40)	4.77	23706187	787.288 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

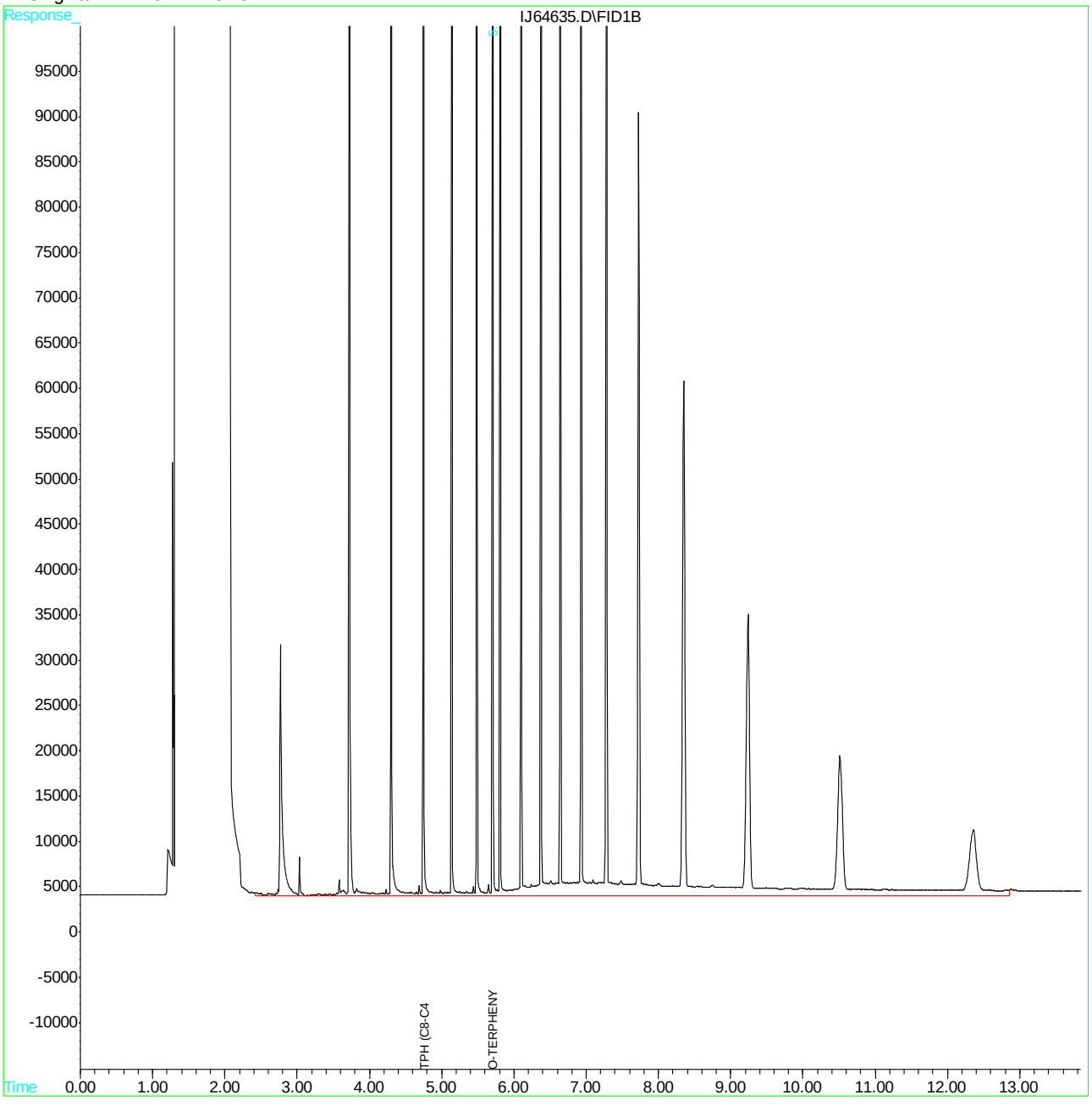
IJ64635.D FL_PRO_R.M Wed Mar 17 14:39:31 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64635.D Vial: 72
Acq On : 16 Mar 2010 5:22 pm Operator: enoca
Sample : op32170-bs Inst : FID 1
Misc : op32170,gij2167,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 14:27 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64640.D          Vial: 77
Acq On    : 16 Mar 2010   7:13 pm                   Operator: enoca
Sample    : op32170-ms                              Inst    : FID 1
Misc      : op32170,gij2167,520,,,1,1,water         Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17 14:30 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1625156	48.697 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery =	97.39%
Target Compounds			
2) H TPH (C8-C40)	4.77	22696288	753.749 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

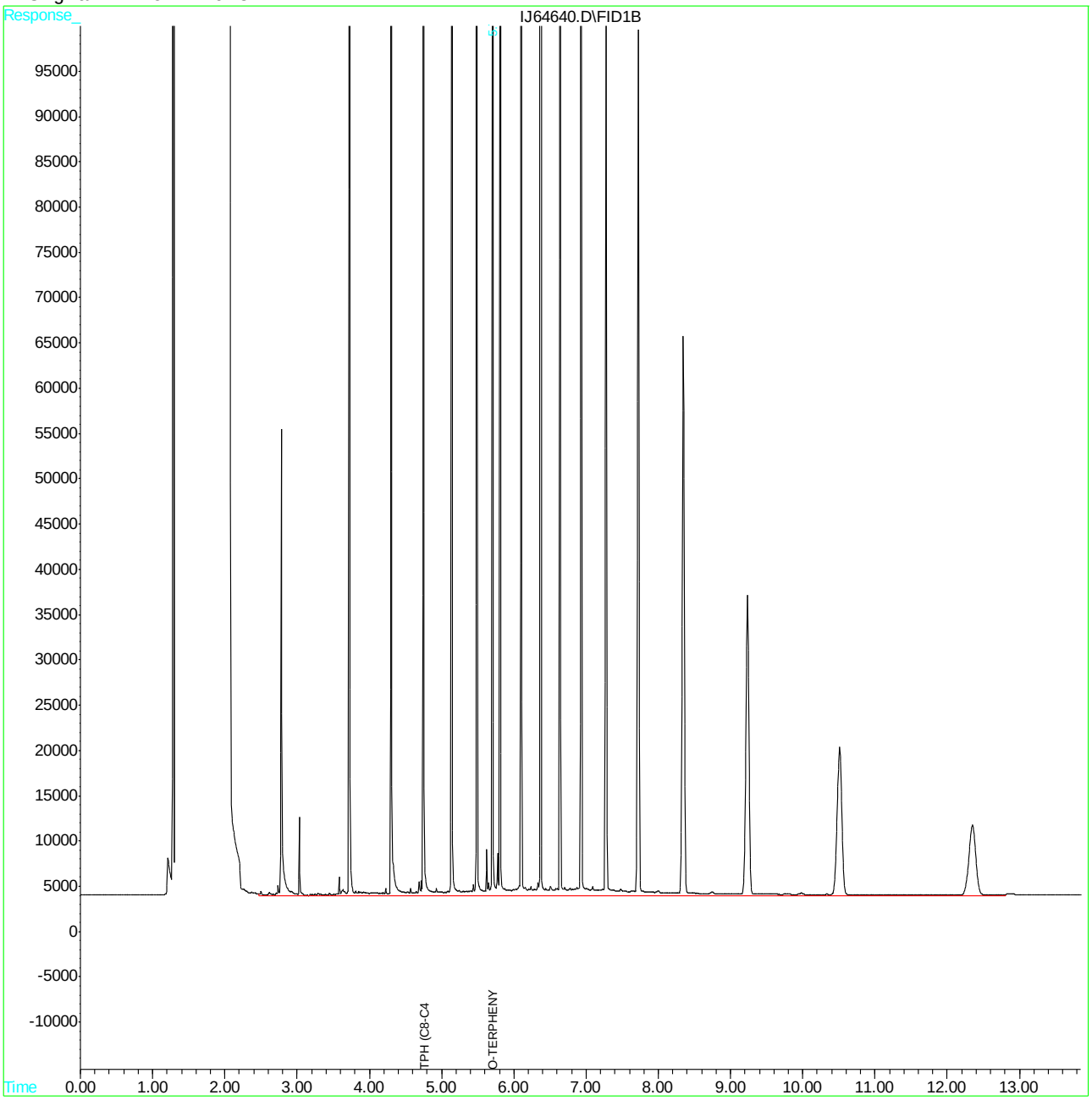
IJ64640.D FL_PRO_R.M Wed Mar 17 14:39:40 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64640.D Vial: 77
Acq On : 16 Mar 2010 7:13 pm Operator: enoca
Sample : op32170-ms Inst : FID 1
Misc : op32170,gij2167,520,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 14:30 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64641.D          Vial: 78
Acq On    : 16 Mar 2010   7:35 pm                   Operator: enoca
Sample    : op32170-msd                             Inst    : FID 1
Misc      : op32170,gij2167,520,,,1,1,water         Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17  8:13 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1586210	47.530 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery = 95.06%	
Target Compounds			
2) H TPH (C8-C40)	4.77	21549640	715.669 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

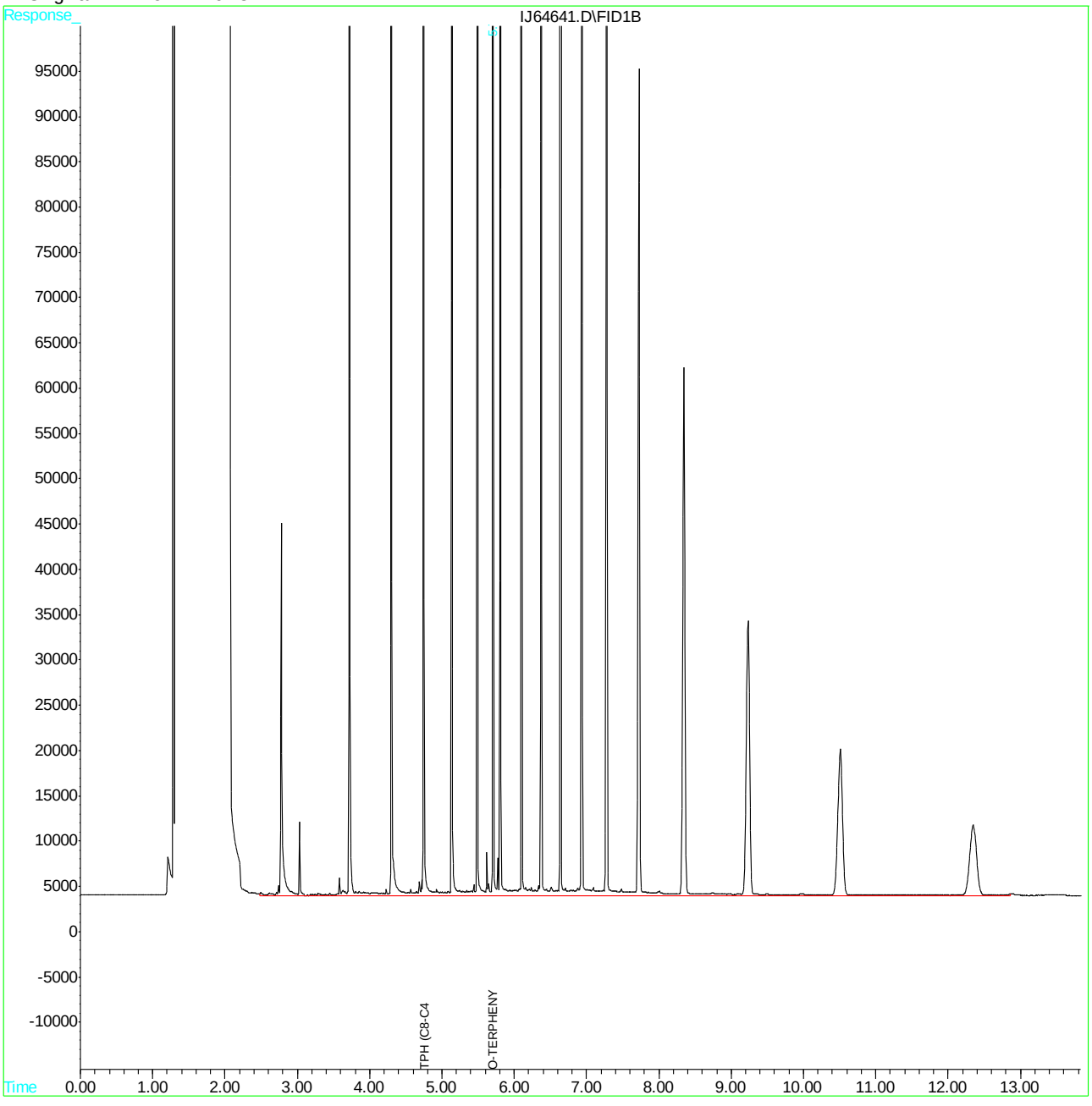
IJ64641.D FL_PRO_R.M Wed Mar 17 14:39:42 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64641.D Vial: 78
Acq On : 16 Mar 2010 7:35 pm Operator: enoca
Sample : op32170-msd Inst : FID 1
Misc : op32170,gij2167,520,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 8:13 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64352.D          Vial: 3
Acq On    :  9 Mar 2010   5:02 pm                   Operator: enoca
Sample    : ic2164-255                              Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  7:51 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 07:46:09 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	241718	8.244 PPM
Spiked Amount 50.000 Range 38 - 122 Recovery = 16.49%#			
Target Compounds			
2) H TPH (C8-C40)	4.77	8000226	276.287 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

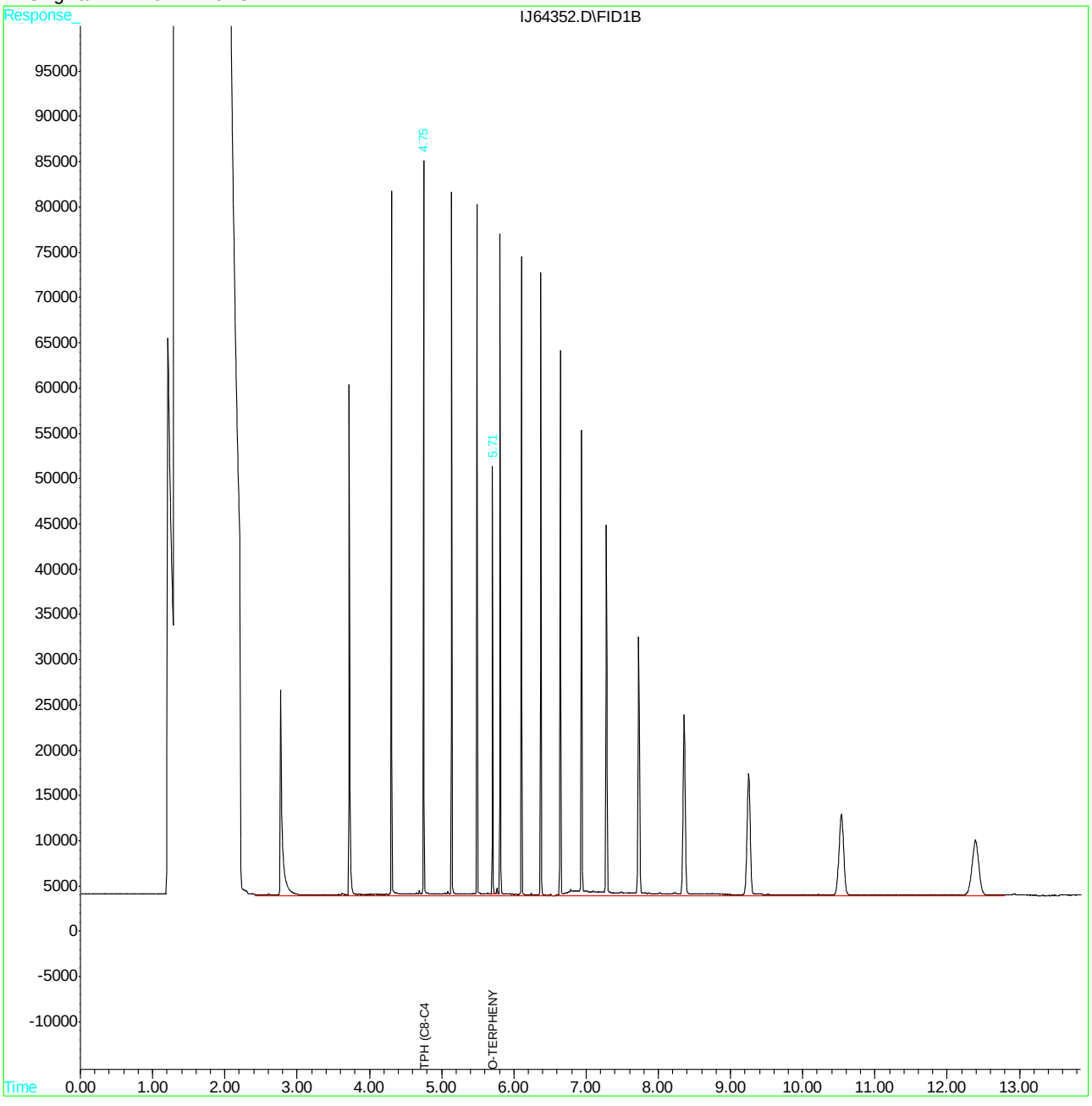
IJ64352.D FL_PRO_R.M Wed Mar 10 11:26:56 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64352.D Vial: 3
Acq On : 9 Mar 2010 5:02 pm Operator: enoca
Sample : ic2164-255 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 7:51 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 07:46:09 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



ACCUTEST Laboratories F71934

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64353.D          Vial: 4
Acq On    :  9 Mar 2010   5:25 pm                   Operator: enoca
Sample    : ic2164-340                              Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  7:52 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 07:46:09 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	326468	11.135 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery =	22.27%#
Target Compounds			
2) H TPH (C8-C40)	4.77	10341788	357.152 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

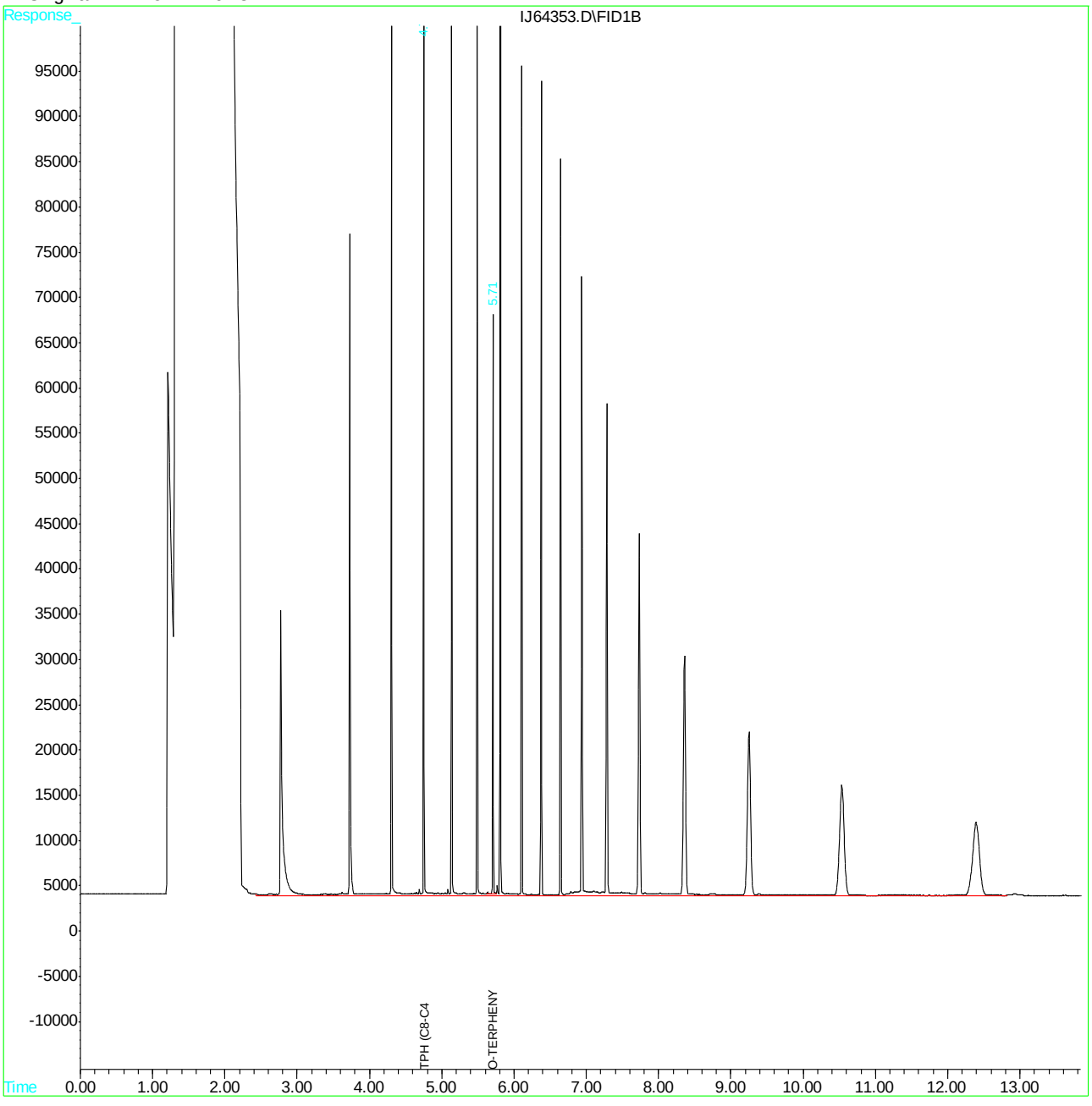
IJ64353.D FL_PRO_R.M Wed Mar 10 11:26:58 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64353.D Vial: 4
Acq On : 9 Mar 2010 5:25 pm Operator: enoca
Sample : ic2164-340 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 7:52 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 07:46:09 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



ACCUTEST Laboratories F71934

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64354.D          Vial: 5
Acq On    :  9 Mar 2010   5:47 pm                   Operator: enoca
Sample    : ic2164-680                              Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  7:53 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 07:46:09 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	665194	22.688 PPM
Spiked Amount 50.000 Range 38 - 122 Recovery = 45.38%			
Target Compounds			
2) H TPH (C8-C40)	4.77	20273794	700.153 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

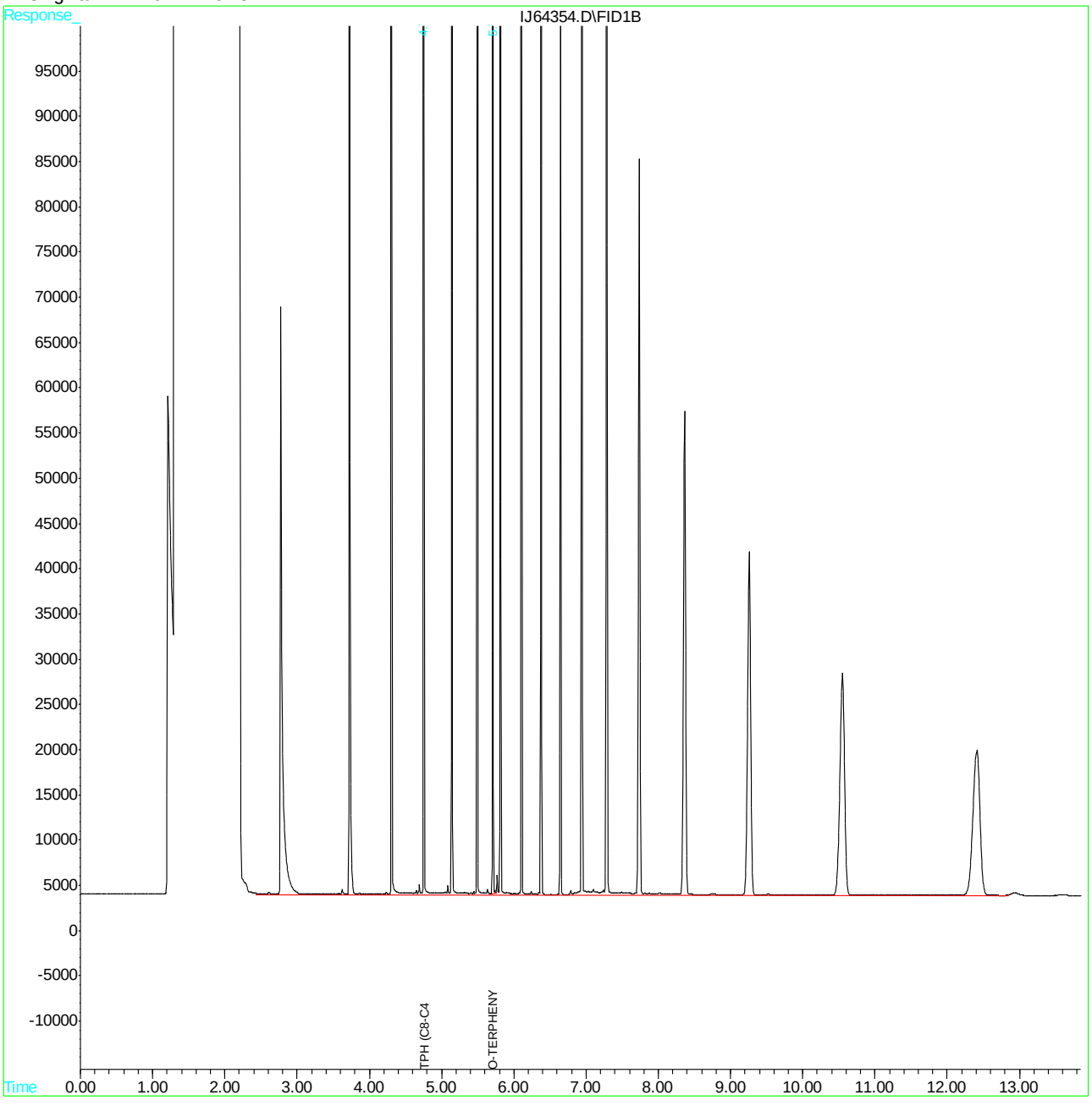
IJ64354.D FL_PRO_R.M Wed Mar 10 11:26:59 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64354.D Vial: 5
Acq On : 9 Mar 2010 5:47 pm Operator: enoca
Sample : ic2164-680 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 7:53 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 07:46:09 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64355.D          Vial: 6
Acq On    :  9 Mar 2010   6:09 pm                   Operator: enoca
Sample    : icc2164-1360                            Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  7:54 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 07:46:09 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1392038	47.479 PPM
Spiked Amount 50.000 Range 38 - 122 Recovery = 94.96%			
Target Compounds			
2) H TPH (C8-C40)	4.77	41918535	1447.652 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

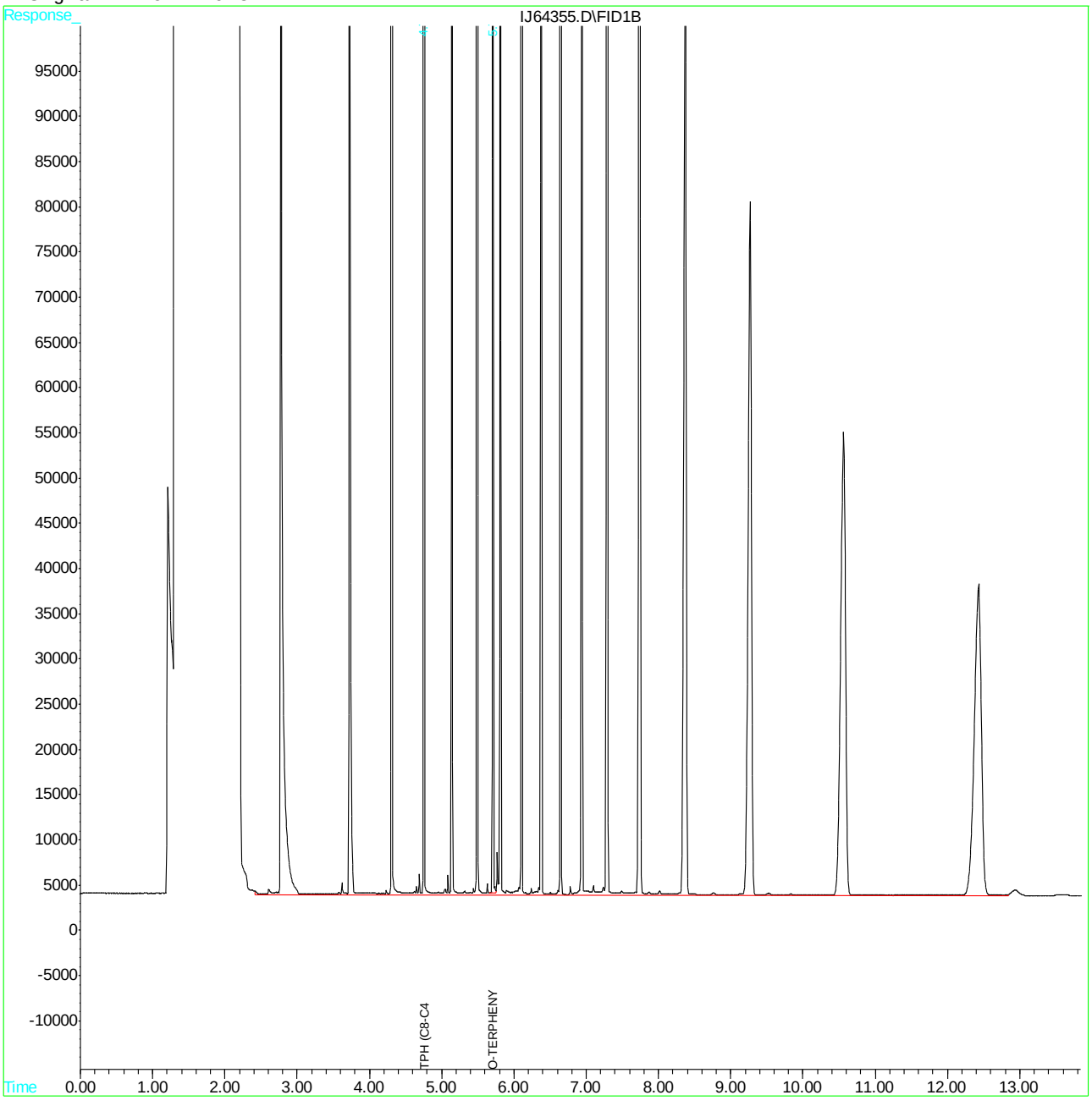
IJ64355.D FL_PRO_R.M Wed Mar 10 11:27:01 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64355.D Vial: 6
Acq On : 9 Mar 2010 6:09 pm Operator: enoca
Sample : icc2164-1360 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 7:54 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 07:46:09 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



ACCUTEST Laboratories F71934

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64356.D          Vial: 7
Acq On    :  9 Mar 2010   6:31 pm                   Operator: enoca
Sample    : ic2164-2040                             Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  7:55 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 07:46:09 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1958059	66.785 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery = 133.57%#	
Target Compounds			
2) H TPH (C8-C40)	4.77	58523812	2021.113 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

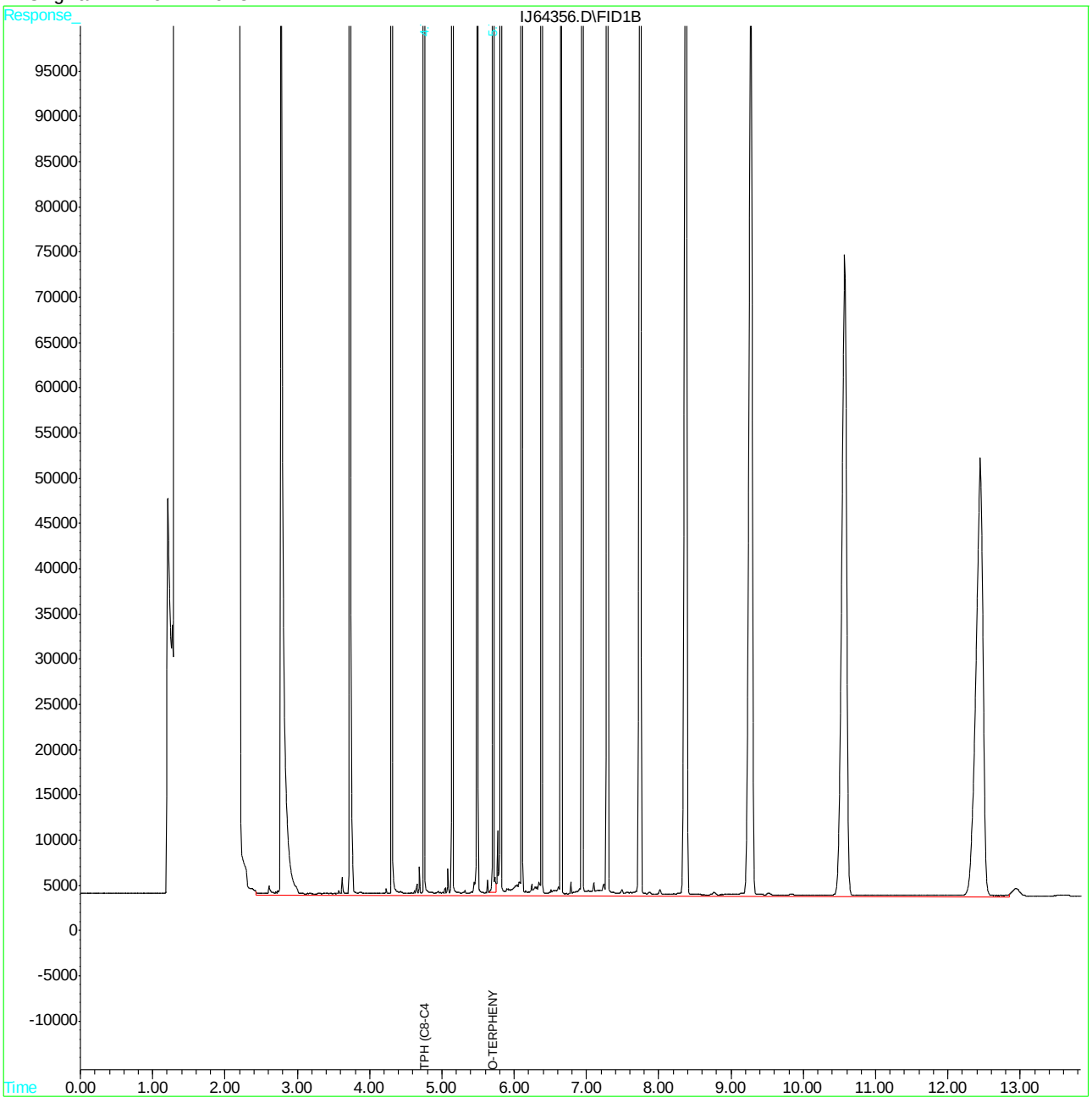
IJ64356.D FL_PRO_R.M Wed Mar 10 11:27:02 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64356.D Vial: 7
Acq On : 9 Mar 2010 6:31 pm Operator: enoca
Sample : ic2164-2040 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 7:55 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 07:46:09 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64357.D          Vial: 8
Acq On    :  9 Mar 2010   6:54 pm                   Operator: enoca
Sample    : ic2164-2720                             Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  7:56 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 07:46:09 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	2621160	89.401 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery = 178.80%#	
Target Compounds			
2) H TPH (C8-C40)	4.77	78261957	2702.767 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

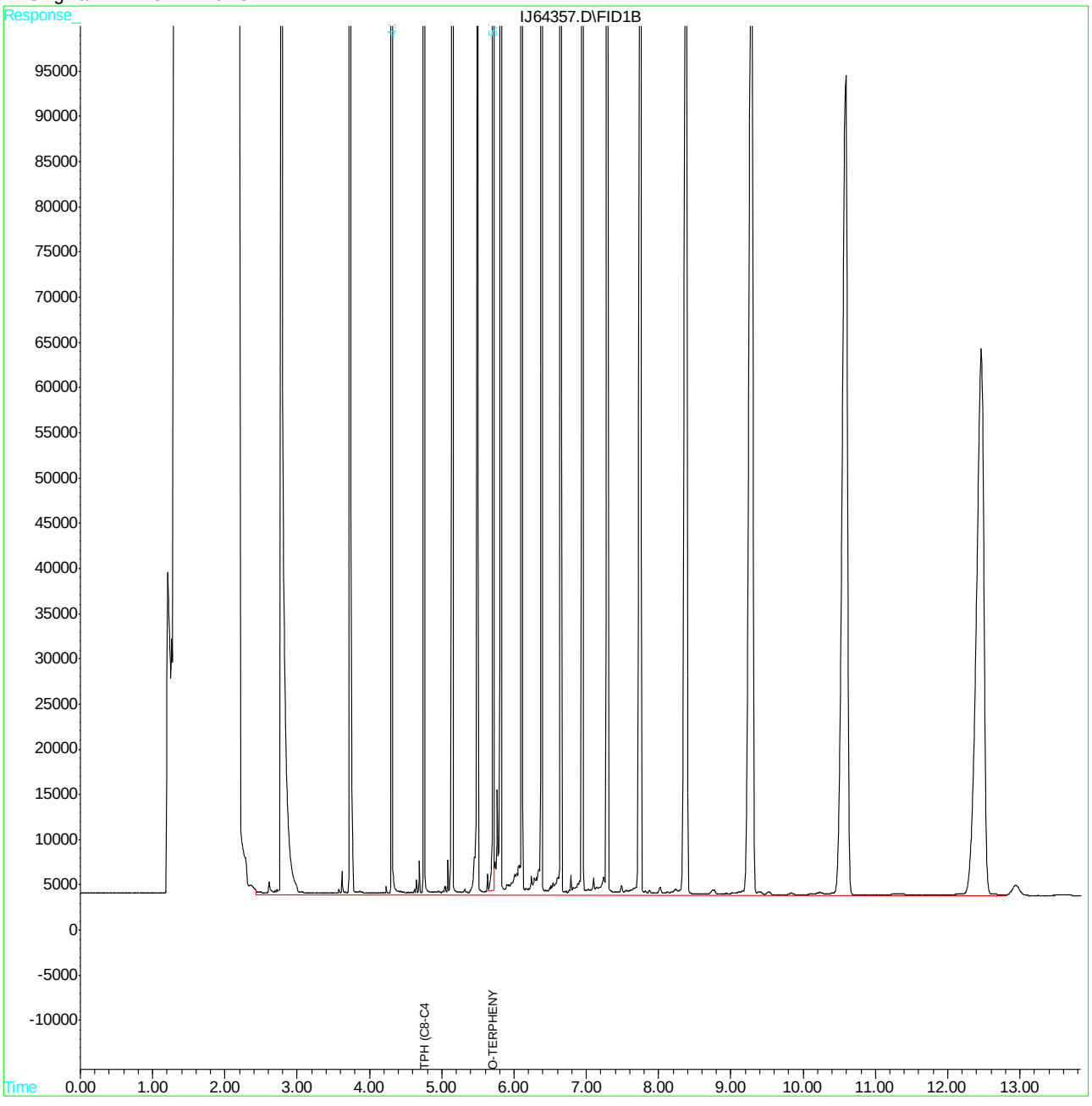
IJ64357.D FL_PRO_R.M Wed Mar 10 11:27:04 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64357.D Vial: 8
Acq On : 9 Mar 2010 6:54 pm Operator: enoca
Sample : ic2164-2720 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 7:56 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 07:46:09 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



IJ64358.D

Manual Integrations APPROVED (compounds with "m" flag)

Mike Eger
03/10/10 13:34

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64358.D          Vial: 9
Acq On    :  9 Mar 2010   7:16 pm                   Operator: enoca
Sample    : ic2164-3400                             Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  7:59 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 07:46:09 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID

     Compound                    R.T.       Response    Conc Units
---------------------------------------------------------------------------

System Monitoring Compounds
 1) S   O-TERPHENYL                 5.71        3527673  120.320 PPM  m
Spiked Amount     50.000   Range  38 - 122    Recovery   =  240.64%#

Target Compounds
 2) H   TPH (C8-C40)                4.77      105026349 3627.072 PPM
```

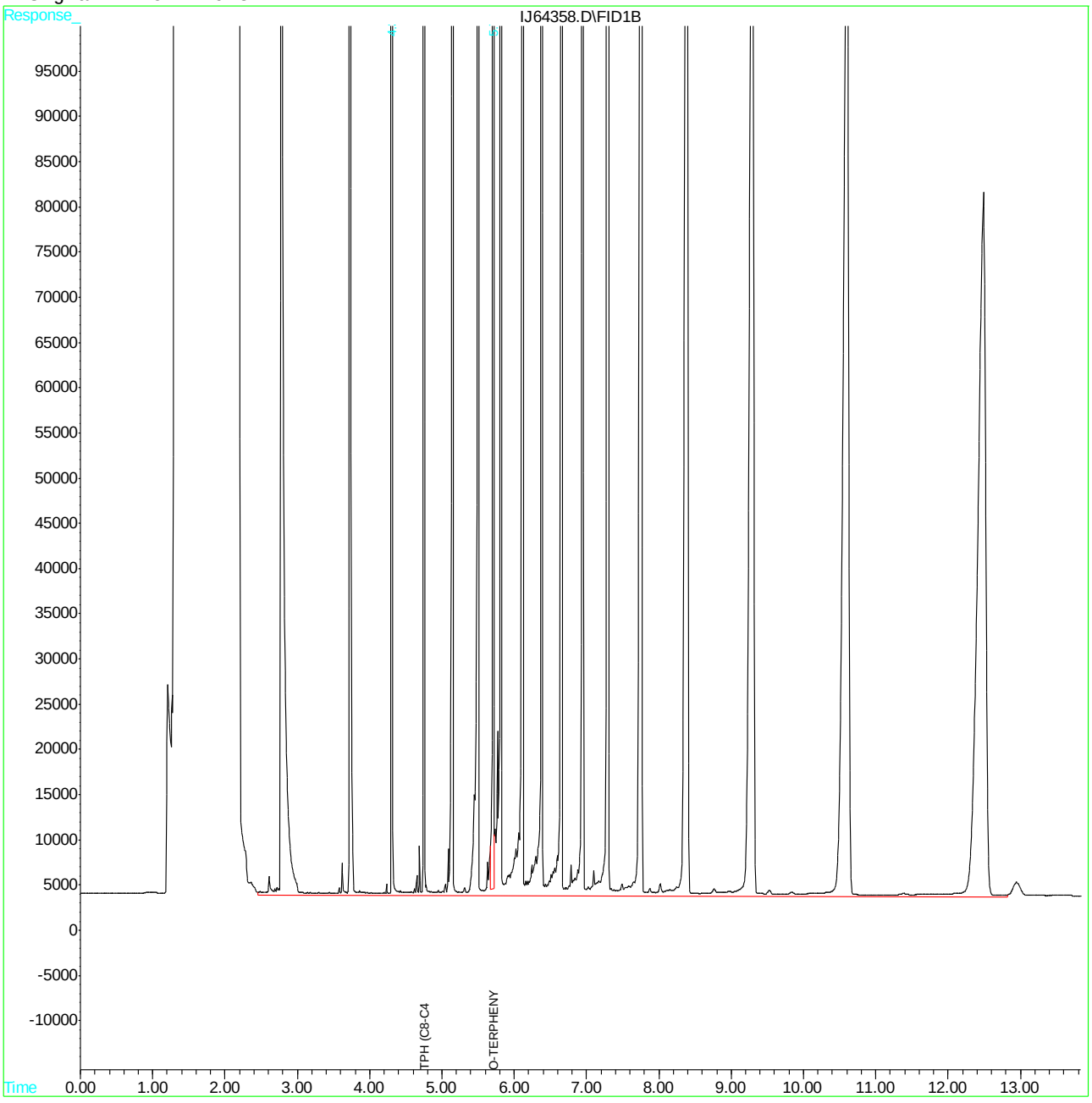
```
---------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
IJ64358.D  FL_PRO_R.M      Wed Mar 10 11:27:05 2010
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64358.D Vial: 9
Acq On : 9 Mar 2010 7:16 pm Operator: enoca
Sample : ic2164-3400 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 7:59 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 07:46:09 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64359.D          Vial: 10
Acq On    :  9 Mar 2010   7:38 pm                   Operator: enoca
Sample    : icv2164-1360                            Inst    : FID 1
Misc      : op32068,gij2164,1000,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 10  9:01 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID

     Compound                    R.T.       Response    Conc Units
---------------------------------------------------------------------------

System Monitoring Compounds
 1) S   O-TERPHENYL                 0.00              0    N.D.  PPM  d
Spiked Amount     50.000   Range  38 - 122    Recovery   =    0.00%#

Target Compounds
 2) H   TPH (C8-C40)                4.77       40303388 1338.485 PPM
```

(f)=RT Delta > 1/2 Window (m)=manual int.

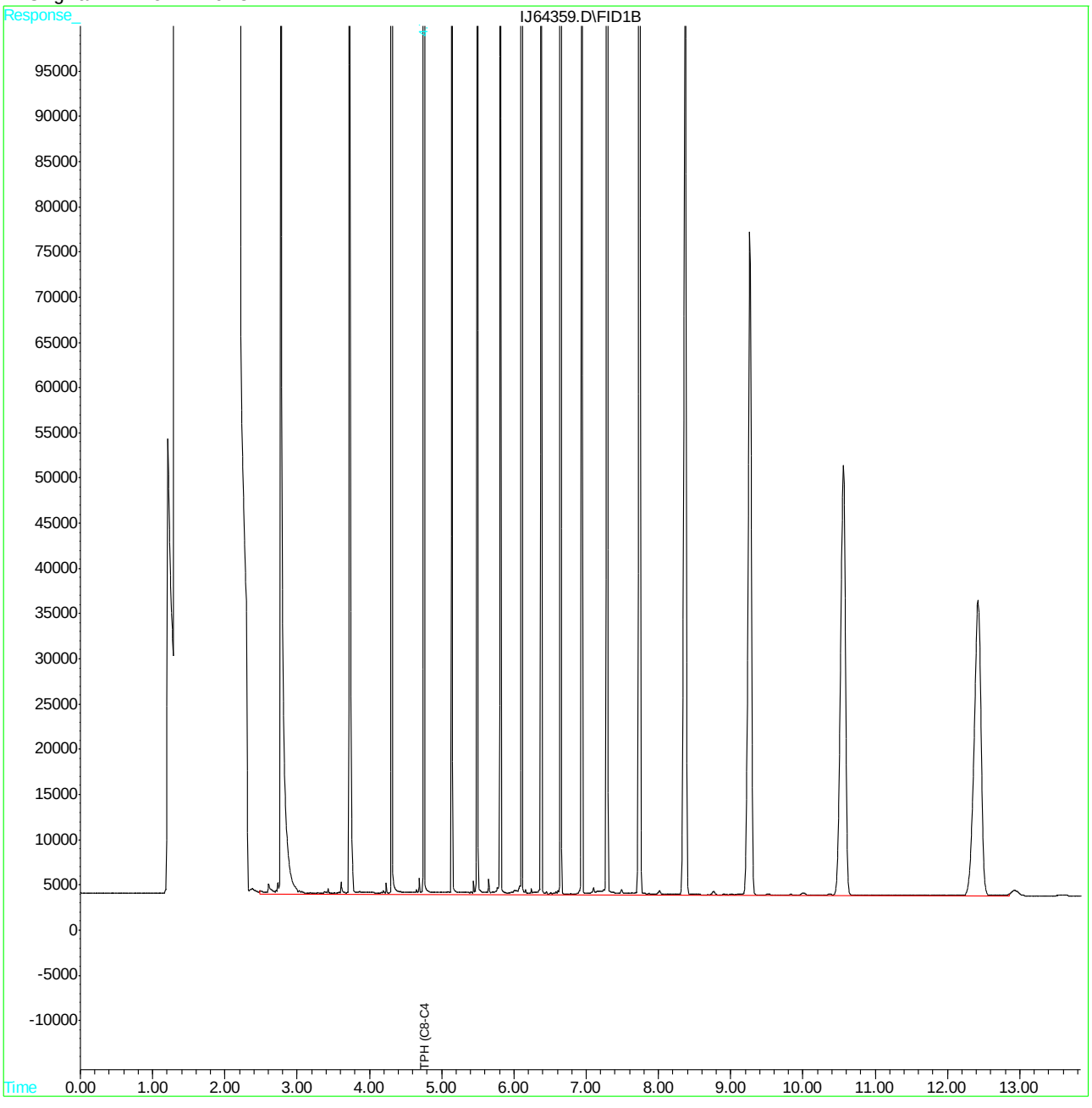
IJ64359.D FL_PRO_R.M Wed Mar 10 11:27:06 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0309PRO\IJ64359.D Vial: 10
Acq On : 9 Mar 2010 7:38 pm Operator: enoca
Sample : icv2164-1360 Inst : FID 1
Misc : op32068,gij2164,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 10 9:01 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64631.D          Vial: 58
Acq On    : 16 Mar 2010   3:53 pm                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32168,gij2167,30.0,,,1,1,soil         Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17 14:23 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1325570	39.720 PPM
Spiked Amount 50.000	Range 47 - 111	Recovery = 79.44%	
Target Compounds			
2) H TPH (C8-C40)	4.77	43688695	1450.912 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

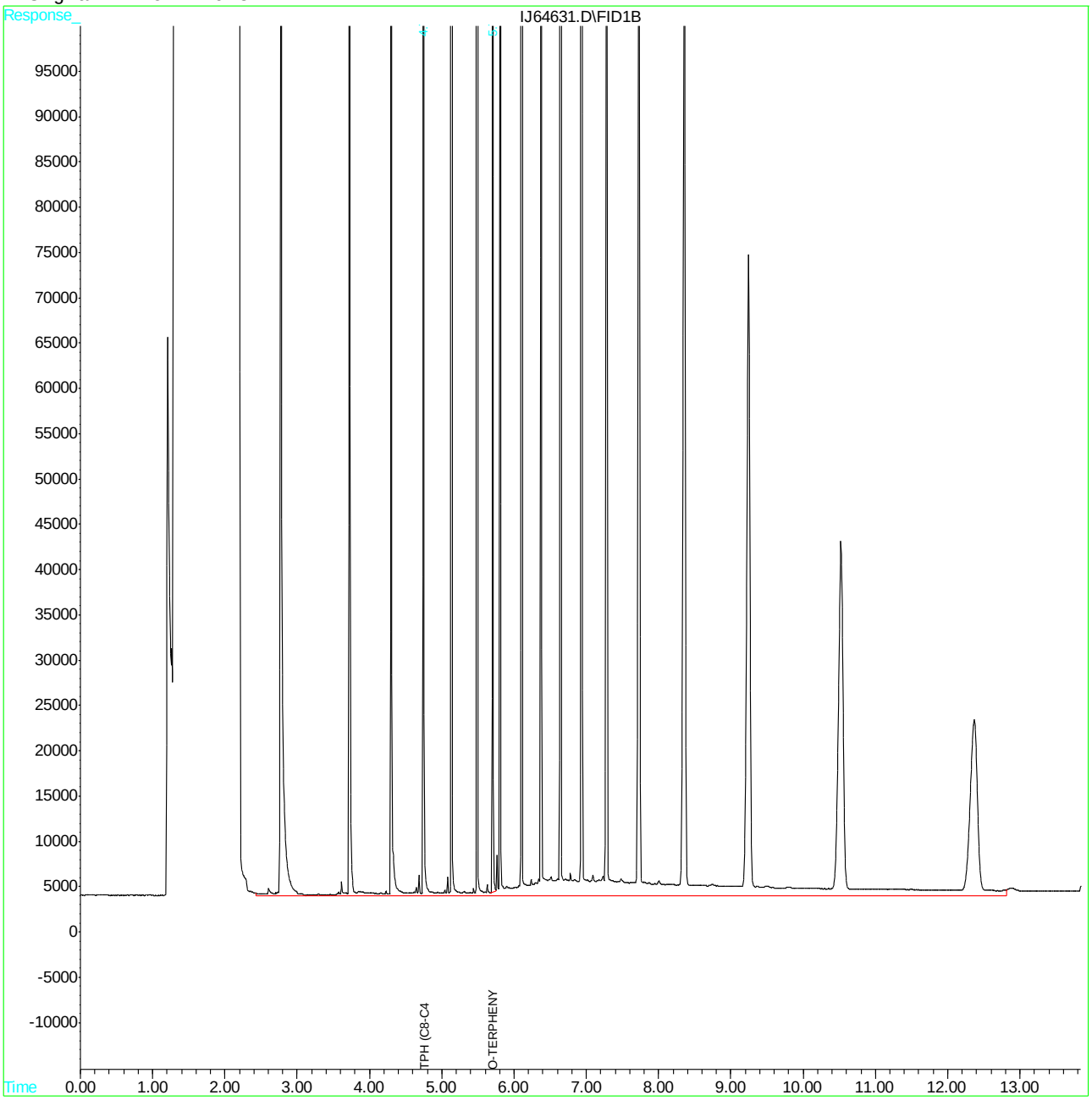
IJ64631.D FL_PRO_R.M Wed Mar 17 14:39:24 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64631.D Vial: 58
Acq On : 16 Mar 2010 3:53 pm Operator: enoca
Sample : cc2164-1360 Inst : FID 1
Misc : op32168,gij2167,30.0,,,1,1,soil Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 14:23 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64643.D          Vial: 80
Acq On    : 16 Mar 2010   8:19 pm                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32170,gij2167,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17 14:32 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1320745	39.575 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery = 79.15%	
Target Compounds			
2) H TPH (C8-C40)	4.77	38593773	1281.709 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

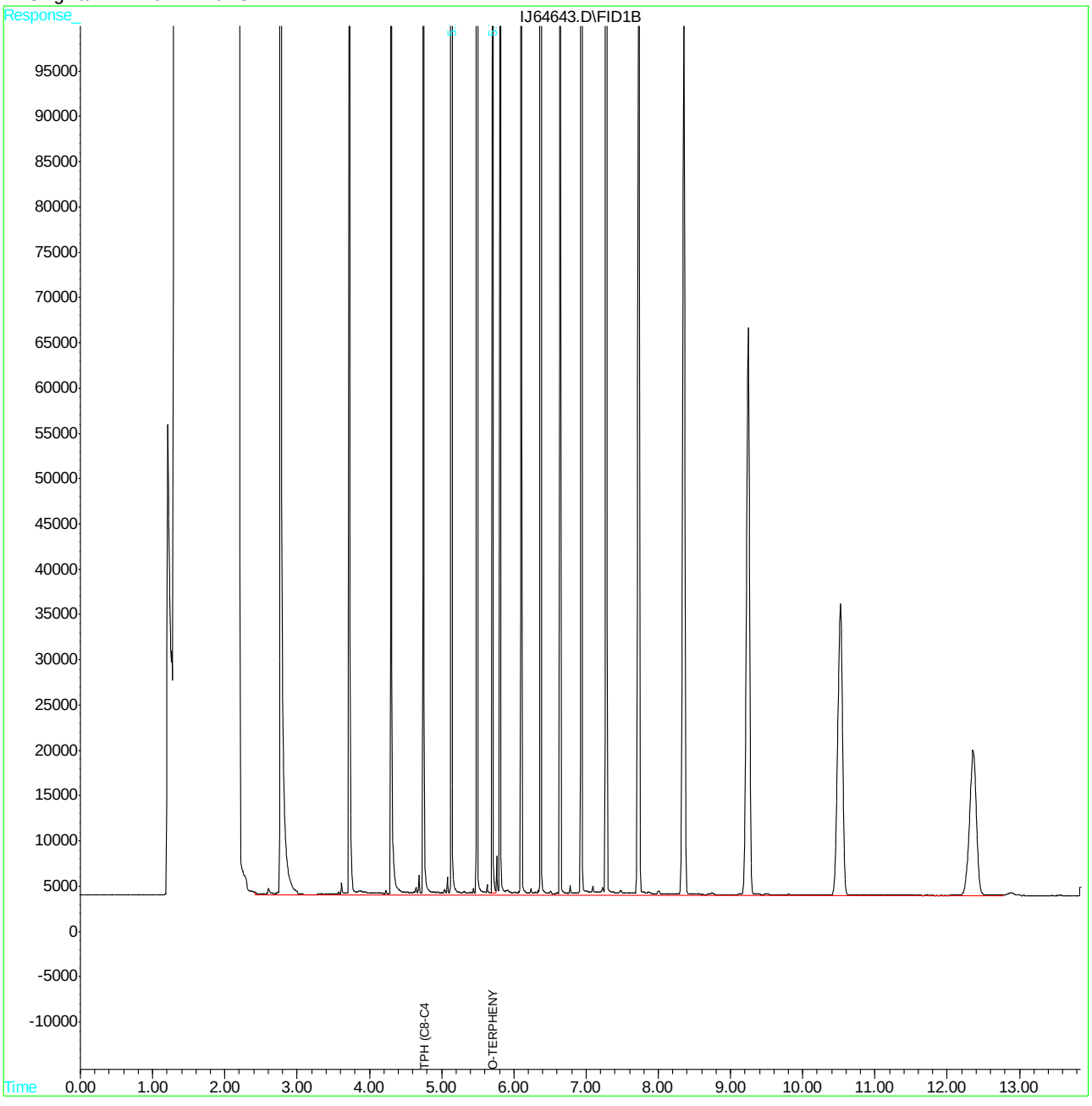
IJ64643.D FL_PRO_R.M Wed Mar 17 14:39:45 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64643.D Vial: 80
Acq On : 16 Mar 2010 8:19 pm Operator: enoca
Sample : cc2164-1360 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 14:32 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64655.D          Vial: 80
Acq On    : 17 Mar 2010  12:45 am                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32170,gij2167,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 17 15:24 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 10 08:24:52 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.71	1329758	39.845 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery = 79.69%	
Target Compounds			
2) H TPH (C8-C40)	4.77	38537986	1279.856 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

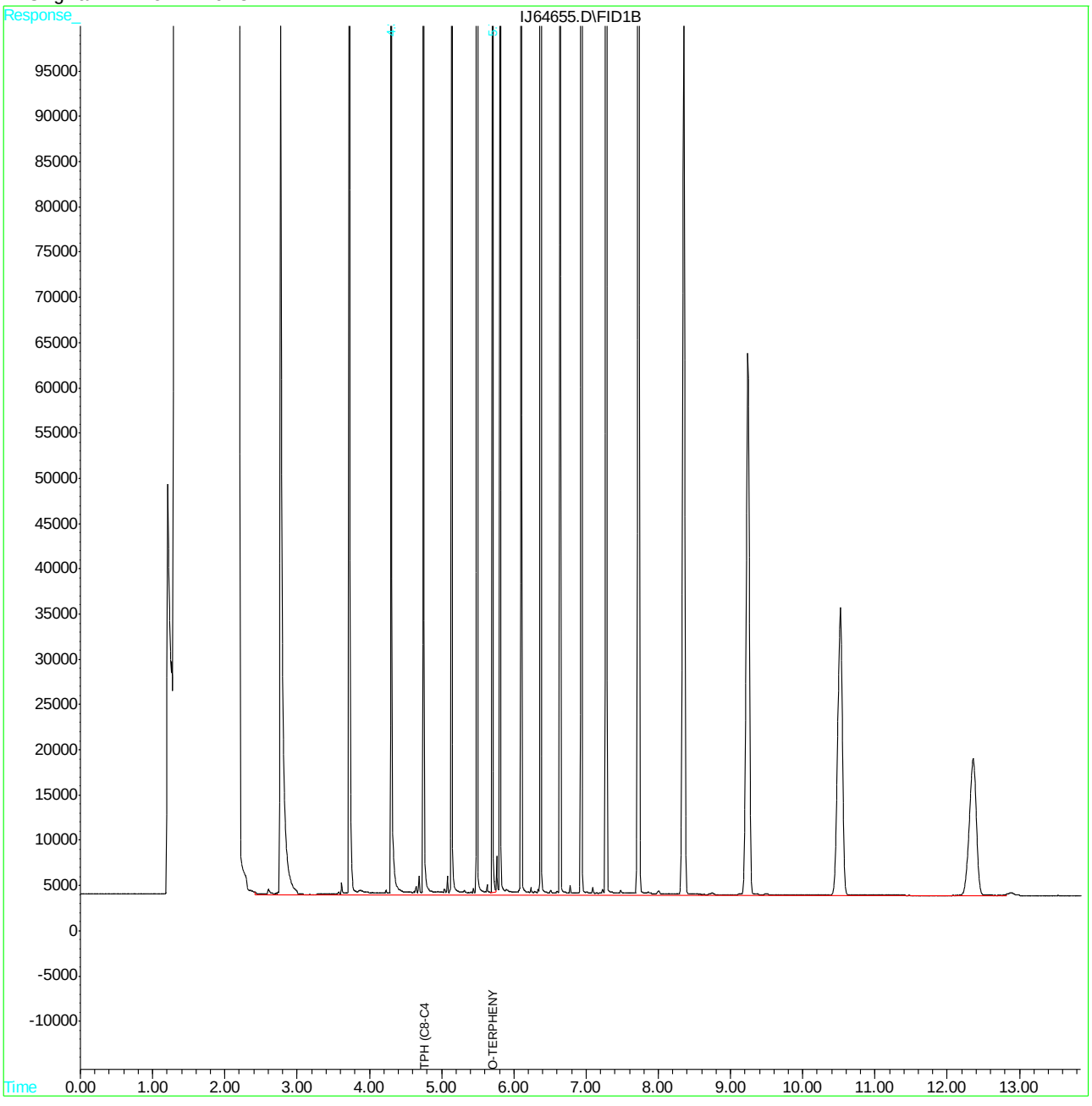
IJ64655.D FL_PRO_R.M Wed Mar 17 15:34:43 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0315PRO\IJ64655.D Vial: 80
Acq On : 17 Mar 2010 12:45 am Operator: enoca
Sample : cc2164-1360 Inst : FID 1
Misc : op32170,gij2167,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 17 15:24 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 10 08:24:52 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64680.D          Vial: 13
Acq On    : 17 Mar 2010   5:16 pm                   Operator: enoca
Sample    : cc2164-1360                             Inst    : FID 1
Misc      : op32150,gij2168,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 18 12:38 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.70	1229715	36.847 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery =	73.69%
Target Compounds			
2) H TPH (C8-C40)	4.77	39347919	1306.754 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

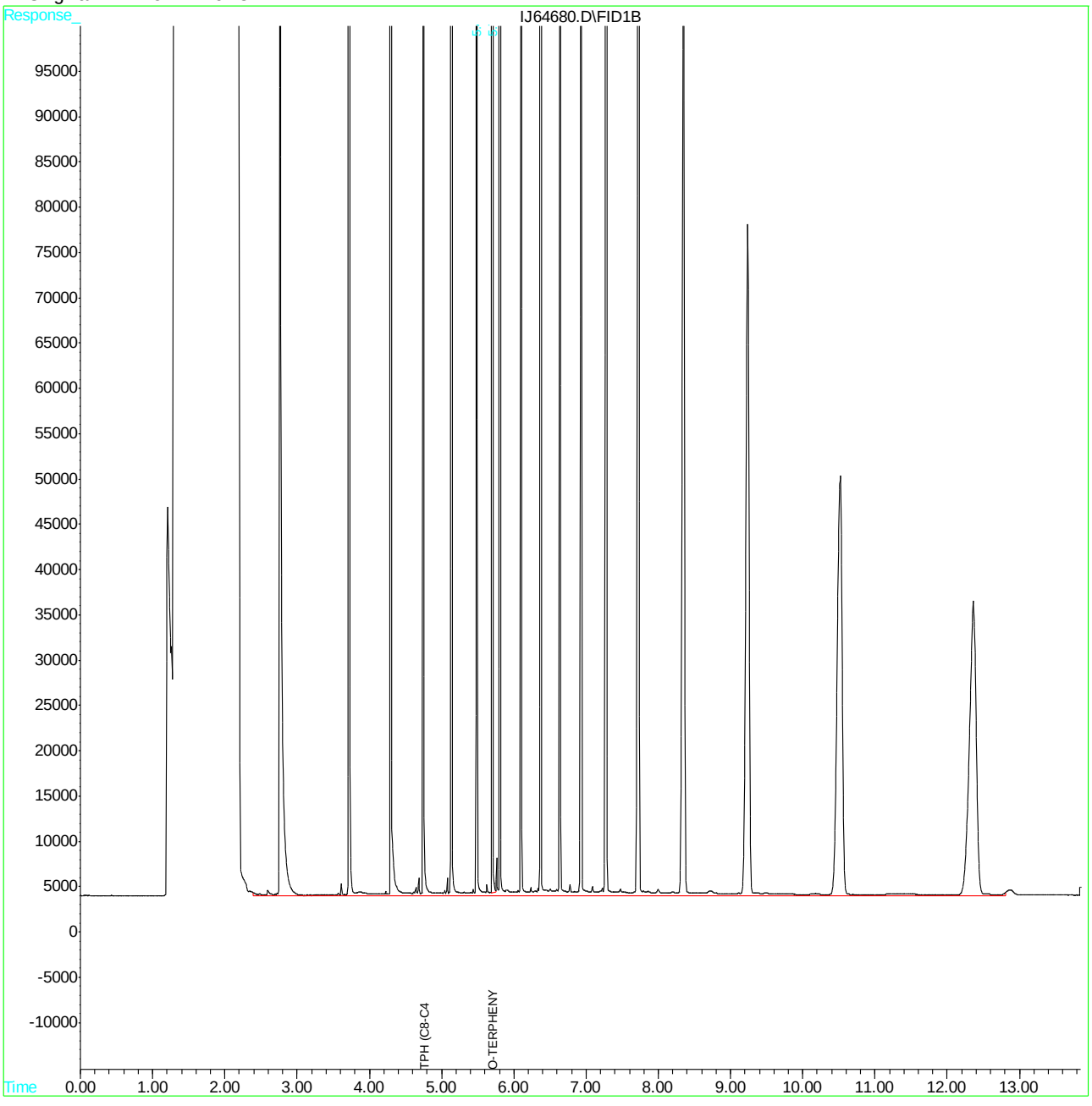
IJ64680.D FL_PRO_R.M Mon Mar 22 15:00:08 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64680.D Vial: 13
Acq On : 17 Mar 2010 5:16 pm Operator: enoca
Sample : cc2164-1360 Inst : FID 1
Misc : op32150,gij2168,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:38 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64683.D          Vial: 13
Acq On    : 17 Mar 2010   6:23 pm                   Operator: enoca
Sample    : ecc2164-1360                            Inst    : FID 1
Misc      : op32170,gij2168,1050,,,1,1,water        Multiplr: 1.00
IntFile   : events.e
Quant Time: Mar 18 12:41 2010  Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Wed Mar 17 11:35:33 2010
Response via : Initial Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj.  : 1uL
Signal Phase : DB-5
Signal Info  : 0.32mm ID
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-TERPHENYL	5.70	1254062	37.577 PPM
Spiked Amount 50.000	Range 38 - 122	Recovery =	75.15%
Target Compounds			
2) H TPH (C8-C40)	4.77	39991975	1328.143 PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

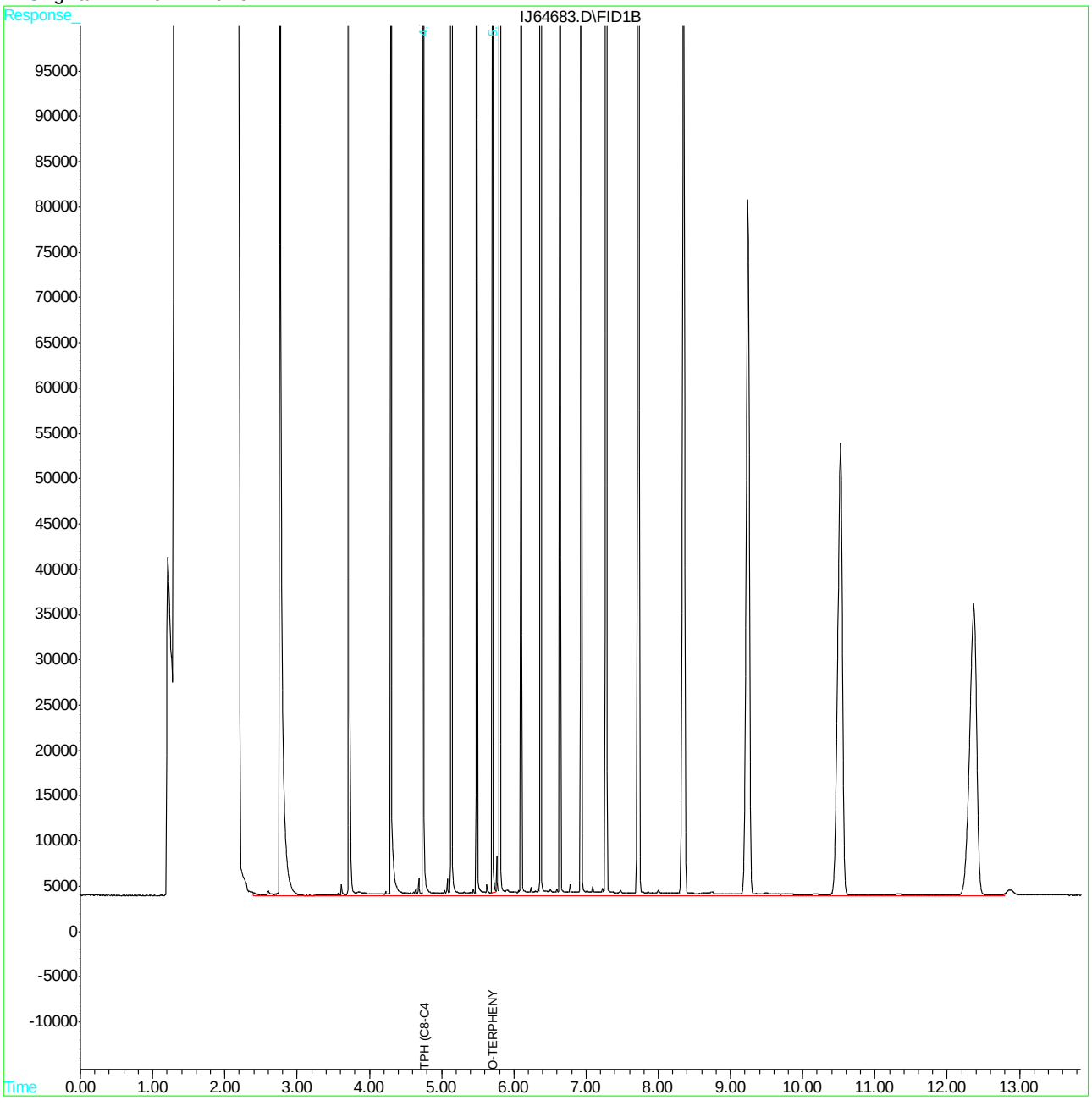
IJ64683.D FL_PRO_R.M Mon Mar 22 15:00:13 2010

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\0317PRO\IJ64683.D Vial: 13
Acq On : 17 Mar 2010 6:23 pm Operator: enoca
Sample : ecc2164-1360 Inst : FID 1
Misc : op32170,gij2168,1050,,,1,1,water Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 18 12:41 2010 Quant Results File: FL_PRO_R.RES

Quant Method : C:\HPCHEM\1\METHODS\FL_PRO_R.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Wed Mar 17 11:35:33 2010
Response via : Multiple Level Calibration
DataAcq Meth : FL_PRO_R.M

Volume Inj. : 1uL
Signal Phase : DB-5
Signal Info : 0.32mm ID



ACCUTEST Laboratories F71934

ACCUTEST LABORATORIES SE

DATE: 03-10-2010	
COLUMN TYPE: DB-5	
AMOUNT INJECTED: 1 ul	
INSTRUMENT: FID1-IJ	

GC FID3-IJ ANALYSIS LOG

METHODS: FL-PRO	
ACQ. METHOD:	
PROC. METHOD:	
CALIB. DATE: 03.09.10	
RUN BATCH: GIJ 2164	

ANALYST:	
MECL2 LOT #: H32509	
SIGNAL 1 SURR. AREA/CONC:	
SIGNAL 2 SURR. AREA/CONC:	

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64349	3	SOLVENT	FL-PRO	—	—		ND
IJ 50	1	CC2143 - 1360		S3442	2:5		PASS (DNR)
IJ 51	2	CC 2143 - 340			10X		PASS
IJ 52	3	IC 2164 - 255		S3442	75:100		PASS
IJ 53	4	IC 2164 - 340			10X		PASS
IJ 54	5	IC 2164 - 680			5		PASS
IJ 55	6	ICC2164 - 1360			2:5		PASS
IJ 56	7	IC 2164 - 2040			3:5		PASS
IJ 57	8	IC 2164 - 2720			4:5		PASS
IJ 58	9	IC 2164 - 3400			1X		PASS
IJ 59	10	ICV2164 - 1360		(ULTRA) 4801 D	80:500		PASS
IJ 60	11	CCB		—	—		ND
IJ 61	12	OP 32049 - BS, RR		OP32049	1X		✓
IJ 62	13	- MB,					ND
IJ 63	14	F71737 - 1				PDB	✓
IJ 64	15	OP32069 - BS, RR		OP32069	1X	PDB	✓
IJ 65	16	- MB,					ND
IJ 66	17	F71737 - 7,				PDB	✓
IJ 67	18	- 8,				PDB	ND
IJ 64369	19	OP32060 - BS,		OP32060			✓

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

(1 - 2) 1

Analyst's Signature: _____

gcfid1_ij_log.xls NF rev. 08/09

ACCUTEST LABORATORIES SE

DATE:	03-09-2010
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	FL-PRO
ACQ. METHOD:	↓
PROC. METHOD:	↓
CALIB. DATE:	03.09.10
RUN BATCH:	GIJ 2164

ANALYST:	EVOC
MECL2 LOT #:	132509
SIGNAL 1 SURR. AREA/CONC:	
SIGNAL 2 SURR. AREA/CONC:	—

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64369	20	OP32060-MB,RR	FL-PRO	OP32060	1X		ND
IJ 70	21	F71761-1,10,I			10X	PDB	% Solids (?)
IJ 71	22	CCC2164-1360		S3442	2.5		PASS
IJ 72	23	CCB		—	—	DO NOT Report	DO NOT REPORT (RR in another injection)
IJ 73	24	F71761-2,5,RR		OP32060	5X		
IJ 74	25	-3			1X		
IJ 75	26	-4			1X		
IJ 76	27	-5,2			2X		
IJ 77	28	OP32060-MS,2			2X		
IJ 78	29	-MSD,2			2X		
IJ 79	30	F71761-6,RR			1X		
IJ 80	31	-7					
IJ 81	32	-8					
IJ 82	33	-9					
IJ 83	34	CCC2164-1360		S3442	2.5		
IJ 84	35	CCB		—	—		
IJ 85	36	F71761-10,RR		OP32060	1X		
IJ 64386	37	CCC2164-1360		S3442	2.5		
IJ							
IJ							

Rerun

DO NOT Report

(EEA 03/10/10)

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

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Analyst's Signature: EVOC

Instrument Run Log GIJ2164 page 2 of 2
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ACCUTEST Laboratories
F71934
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6.6.1

ACCUTEST LABORATORIES SE

DATE:	03-15-2010
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	FL-PRO
ACQ. METHOD:	↓
PROC. METHOD:	↓
CALIB. DATE:	03.09.10
RUN BATCH:	GIJ 2167

ANALYST:	ENOC
MECL2 LOT #:	H132507
SIGNAL 1 SURR. AREA/CONC:	1234865 / 40
SIGNAL 2 SURR. AREA/CONC:	— / —

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64560	1	CC2164 - 1360	FL-PRO	S3442	2.5	PDB	PASS
IJ 61	2	↓ -340	↓	↓	10x	↓	PASS
IJ 62	3	CCB		—	—		ND
IJ 63	4	OP32150 -BS		OP32150	1X	PDB	✓
IJ 64	5	↓ -MB		↓	↓		ND
IJ 65	6	F71968 - 1				PDB	✓
IJ 66	7	F71964 -1				↓	✓
IJ 67	8	↓ -2					✓
IJ 68	9	F71969 -2				↓	✓
IJ 69	10	OP32150 -MS				PDB	✓
IJ 70	11	↓ -MSD				↓	✓
IJ 71	12	F71969 -3				PDB	✓
IJ 72	13	↓ -4		↓	↓	↓	✓
IJ 73	14	CC2164 - 1360		S3442	2.5	PDB	PASS
IJ 74	15	CCB		—	—		ND
IJ 75	16	F71965 -2		OP32150	1X		ND
IJ 76	17	↓ -3		↓	↓	PDB	✓
IJ 77	18	F71900 - 1				↓	✓
IJ 78	19	F71932 - 1					✓
IJ 64579	20	↓ -2	↓	↓	↓	↓	

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

(1 - ~~2~~) (1)

Analyst's Signature: [signature]

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Instrument Run Log GIJ2167 page 1 of 6
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6.6.2 9

ACCUTEST LABORATORIES SE

DATE:	03-15-10
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	FL-PRO
ACQ. METHOD:	↓
PROC. METHOD:	↓
CALIB. DATE:	03 09. 10
RUN BATCH:	GIJ 2167

ANALYST:	EVRO
MECL2 LOT #:	H132507
SIGNAL 1 SURR. AREA/CONC:	1234865/40
SIGNAL 2 SURR. AREA/CONC:	—

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64580	21	F71932 -3	FL-PRO	OP32150	1X		ND
IJ 81	22	↓ -4	↓	↓	↓	PDB	✓
IJ 82	23	F71936 -1				↓	✓
IJ 83	24	↓ -2				↓	✓
IJ 84	25	↓ -3		↓	↓	PDB	✓ | RR2X (DNR)
IJ 85	19	CC2164 -1360		S3442	2:5	I	PASS
IJ 86	15	CCB		—	—		ND
IJ 87	26	F71936 -4		OP32150	1X		ND
IJ 88	27	↓ -5		↓	↓	PDB	✓
IJ 89	28	↓ -6				↓	✓
IJ 90	29	↓ -7		↓	↓	↓	✓
IJ 91	30	OP32168 -BS		OP32168	1X	PDB	✓
IJ 92	31	↓ -MB		↓	↓	~~I~~ 4/17/10	ND
IJ 93	32	F72064 -1				PDB	✓
IJ 94	33	↓ -2					ND
IJ 95	34	↓ -3					ND
IJ 96	35	↓ -4		↓	↓		ND
IJ 97	36	CC2164 -1360		S3442	2:5	PDB	PASS
IJ 98	37	CCB		—	—		ND
IJ 64599	38	F72008 -1	↓	OP32168	1X	PDB	✓

Positive RA on 4/14/10

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **CP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

gcfid1_ij_log.xls NF rev. 08/09 (2-~~1~~) (2) Analyst's Signature: [signature]

Instrument Run Log GIJ2167 page 2 of 6
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ACCUTEST Laboratories F71934
6.6.2 9

ACCUTEST LABORATORIES SE

DATE:	03-15-10
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	FL-PRO
ACQ. METHOD:	T
PROC. METHOD:	T
CALIB. DATE:	03 04.10
RUN BATCH:	GIJ 2167

ANALYST:	EWOE
MECL2 LOT #:	H32507
SIGNAL 1 SURR. AREA/CONC:	123 4865/40
SIGNAL 2 SURR. AREA/CONC:	—

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64600	39	F72008 -2,10	FL-PRO	OP32169	10x		ND | RR1x (DNR)
IJ 01	40	F72010 -1			1x	PDB	✓
IJ 02	41	F72013 -1,10			10x		✓ | RR200.x (DNR)
IJ 03	42	F72076 -1,10			10x		✓ | RR2x (DNR)
IJ 04	43	-3,10			10x		ND | RR1x (DNR)
IJ 05	44	-4,10			10x		✓ | RR4x (DNR)
IJ 06	45	-5,10			10x		✓ | RR2x (DNR)
IJ 07	46	-19			1x	PDB	✓
IJ 08	47	-20,4			4x		✓ | RR1x (DNR)
IJ 09	48	CC2164 -1360 F		S3442	2.5	PDB	PASS
IJ 10	49	CCB		—	—		ND
IJ 11	50	F72076 -22		OP32169	1x	PDB	✓
IJ 12	51	-23			1x		✓
IJ 13	52	-25,10			10x		✓ | RR2x (DNR)
IJ 14	53	-26			1x	PDB	✓
IJ 15	54	OP32169 -MS			1x		✓
IJ 16	55	-MSD			1x		✓
IJ 17	56	F72076 -40,100			100x		ND | RR10x (DNR)
IJ N	57	-41,10			10x		✓ | RR5x
IJ 64619	58	CC2164 -1360 F		S3442	2.5	PDB	PASS

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

gcfid1_ij_log.xls NF rev. 08/09 (3-~~2~~)

 (3)

Analyst's Signature: _____

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ACCUTEST Laboratories F71934
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ACCUTEST LABORATORIES SE

DATE:	03.15.10
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	TL-PRO
ACQ. METHOD:	↓
PROC. METHOD:	↓
CALIB. DATE:	03.04.10
RUN BATCH:	GIJ 2167

ANALYST:	LNUE
MECL2 LOT #:	H32502
SIGNAL 1 SURR. AREA/CONC:	1234865 / 100
SIGNAL 2 SURR. AREA/CONC:	—

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64620	59	CC2164 - 340	TL-PRO	S3442	10x	PDB	PASS
IJ 21	60	CCB	Glucose 1x 2x	—	—		ND
IJ 22	61	F71936 (BR) -3,4		OP32150	4X		L | RR 2x (DNR)
IJ 23	62	F72008 - 2, RR		OP32168	1X	PDB	✓
IJ 24	63	F72013 -1,200, RR			200x		✓
IJ 25	64	F72070 -1,2, RR +			2x	PDB	✓ +
IJ 26	65	-2, RR			1x		✓
IJ 27	66	-4,4, RR			4x	PDB	✓
IJ 28	67	-5,2, RR			2x		✓
IJ 29	68	-20, RR			1x	PDB	✓
IJ 30	69	-25, 2 RR			2x		✓
IJ 31	58	CC2164 -1360 +		S3442	2.5	PDB	PASS
IJ 32	60	CCB		—	—		ND
IJ 33	70	F72076 -10,10, RR		OP32168	10x	PDB	✓ L.S. (?) +
IJ 34	71	-41,5 RR			5x	PDB	✓
IJ 35	72	OP32170 -BS		OP32170	1x	PDB	✓
IJ 36	73	-MB					ND
IJ 37	74	F71934 -1					ND
IJ 38	75	-2					ND
IJ 64639	76	-3					ND

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PIL** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

gcfid1_ij_log.xls NF rev. 08/09

(4 - ~~3~~)

(4)

Analyst's Signature: [signature]

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ACCUTEST LABORATORIES SE

DATE:	03.15.10
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	FL-PRO
ACQ. METHOD:	I
PROC. METHOD:	I
CALIB. DATE:	03.09.10
RUN BATCH:	GIJ 2167

ANALYST:	ENOC
MECL2 LOT #:	H32507
SIGNAL 1 SURR. AREA/CONC:	1234865/40
SIGNAL 2 SURR. AREA/CONC:	—

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64640	77	OP32170-MS	FL-PRO	OP32170	1x	PDB	✓
IJ 41	78	I -MSD	I	I	I		✓
IJ 42	79	F71934-4		I	I	PDB	ND
IJ 43	80	CC2164-1360	I	S3442	2.5	PDB	PASS
IJ 44	81	CCB		—	—		ND
IJ 45	82	F71934-5		OP32170	1x	PDB	✓
IJ 46	83	F71936-8		—	I	I	✓
IJ 47	84	I -9				PDB	✓
IJ 48	85	F72017-1				I	✓
IJ 49	86	I -2				PDB	✓
IJ 50	87	-3				I	ND
IJ 51	88	I -4					ND
IJ 52	89	F72044-1					ND
IJ 53	90	F72045-1				PDB	✓
IJ 54	91	I -2		I	I	I	✓
IJ 55	80	CC2164-1360		S3442	2.5	PDB	PASS
IJ 56	81	CCB		—	—		ND
IJ 57	92	F72045-3		OP32170	1x		ND
IJ 58	93	F72067-1		I	I	PDB	✓
IJ 64659	94	I -2	I	I	I	PDB	✓ RR 4X (DNR)

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

gcfid1_ij_log.xls NF rev. 08/09 (5-6) (5) Analyst's Signature: [signature]

Instrument Run Log GIJ2167 page 5 of 6
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ACCUTEST LABORATORIES SE

DATE:	03.15.10
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	FL-PRO
ACQ. METHOD:	↓
PROC. METHOD:	↓
CALIB. DATE:	03.09.10
RUN BATCH: GIJ	2167

ANALYST:	ENOC
MECL2 LOT #:	K132507
SIGNAL 1 SURR. AREA/CONC:	123 4865/40
SIGNAL 2 SURR. AREA/CONC:	—

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64660	95	F72069 -1	FL-PRO	OP32170	1X	PDB	✓
IJ 61	96	↓ -2	↓	↓	↓		ND
IJ 62	97	F71936 -3,2 (BR)		OP32150	2X		✓ IRR - ac.s (DNR)
IJ 63	98	E3287		E3287	2X		PASS
IJ 64664	99	ECC2164 -1360	↓	S3442	2.5	PDB	PASS
IJ							
IJ							
IJ							
IJ							
IJ							
IJ							
IJ							
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IJ							
IJ							
IJ							
IJ							
IJ							

FEA 03-17-2010

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PI** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

gcfid1 ij_log.xls NF rev. 08/09 (6 - 6) (6) Analyst's Signature: [signature]

ACCUTEST LABORATORIES SE

DATE:	03-17-2010
COLUMN TYPE:	DB-5
AMOUNT INJECTED:	1 ul
INSTRUMENT:	FID1-IJ

GC FID3-IJ ANALYSIS LOG

METHODS:	FL-PRO
ACQ. METHOD:	↓
PROC. METHOD:	↓
CALIB. DATE:	03.04.10
RUN BATCH:	GIJ 2168

ANALYST:	CNDC
MECL2 LOT #:	H32502
SIGNAL 1 SURR. AREA/CONC:	
SIGNAL 2 SURR. AREA/CONC:	—

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
IJ 64665	3	SOLVENT-BLANK	FL-PRO	—	—		ND
IJ 66	3	↓	↓	—	—		ND
IJ 67	3	↓	↓	—	—		ND
IJ 68	1	CC2164-1360	↓	S3442	2.5	PDB	PASS
IJ 69	2	↓ -340	↓	↓	10x	↓	PASS
IJ 70	3	CCB	↓	—	—		ND
IJ 71	4	OP32150-BS	↓	OP32150	1x	PDB	✓
IJ 72	5	↓ -MB	↓	↓	↓		ND
IJ 73	6	F71936-1 RR +	↓	↓	↓	PDB	✓ RR → ↓ (DNR) + RR
IJ 74	7	↓ -2	↓	↓	↓	↓	✓
IJ 75	8	↓ -3,2	↓	↓	2x	PDB	✓
IJ 76	9	↓ -4	↓	↓	1x		ND
IJ 77	10	↓ -5	↓	↓	↓	PDB	✓
IJ 78	11	↓ -6	↓	↓	↓	↓	✓
IJ 79	12	↓ -7	↓	↓	↓	PDB	✓
IJ 80	13	CC2164-1360	↓	S3442	2.5	↓	PASS
IJ 81	14	OP32170-MB	↓	OP32170	1x		ND
IJ 82	15	F72067-2,4	↓	↓	4x	PDB	✓
IJ 64683	13	CC2164-1360	↓	S3442	2.5	PDB	PASS
~~IJ~~			(FEA 03/10/2010)				

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

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Analyst's Signature: [signature]

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ACCUTEST LABORATORIES SE

LIQUID SAMPLE PREP REPORT

Date/Time: 3/15/10 (mm/dd/yy 24:00)

Prep Method: (3510C) 3535A 3580A or Method (circle)

Batch#: OP32170

Analytical Method: FLP20

Ext. By: DC, ACH, JW Conc. By: JL/JC Vialed By: AH

Sample ID	Bottle Number	Amount Extracted (ml)	Initial pH	Adjusted pH	Surrogate Amount	Spike Amount	Final Volume (ml)	Comments
OP32170 MB		1000	6	<2	0.5mL		1.0mL	
OP32170 BS		1000	6	<2		0.5mL		
F71934-1	2	1050	<2	n/a				
-2	2	1050						
-3	2	1050						MS/MSD
-4	2	1050						
-5	2	1050						
F71936-8	7	1050						
-9	7	1050						
F72017-1	7	1050						
-2	7	1050						
-3	7	1050						
-4	7	1050						
F72044-1	8	1050						
F72045-1	6	1050						
-2	7	1050						
-3	7	1050						
F72067-1	8	1050						
-2	7	1050						
F72068-1	7	1050						
-2	7	1050						
								AH 03/15/10
F71934-3 MS	5	520	<2	n/a	0.5mL	0.5mL	1.0mL	
MSD	5	520	<2					
DUP								

Comments:

Surr. ID: E3267I Conc: 100 PPM Exp. Date: 03/19/10 Inj. By: JW Ver. By DC

Spk. ID: E3277 Conc: 100 PPM Exp. Date: 09/04/10 Inj. By: JW Ver. By DC

Initial Bath Temp (Therm ID): TV #6

Observed Temp °C: 40°C Corr. Temp °C: 40°C

Exchange Bath/N-Evap Temp (Therm ID): —

Observed Temp °C: — Corr. Temp °C: —

CH2CL2 Lot # H45503 Hexane Lot # — Na2SO4 Lot# —

Acetonitrile Lot # — Methanol Lot # — Acetone Lot# —

Syringe Filter Lot# — Reagent # — Reagent # 070552 Silica Gel

Copper Lot # — If Sulfur Cleaning is performed in Extractions (3660B)

Relinquished By: [signature] Date: 03/15/10

Accepted By: [signature] Date: 03/15/10

NF rev. 10/09 extwater 100309.xls

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

03/26/10

Technical Report for

Empirical Labs

NAS Mayport

112G00871

Accutest Job Number: F71731

Sampling Date: 03/01/10

Report to:

Empirical Labs

kkostzer@empirlabs.com

ATTN: Kim Kostzer

Total number of pages in report: **645**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

Empirical Labs

Job No: F71731

NAS Mayport
Project No: 112G00871

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F71731-1	03/01/10	11:10	KW	03/03/10	SO	Soil	MPT-AOCE-SS006-0.5-030110
F71731-2	03/01/10	11:23	KW	03/03/10	SO	Soil	MPT-AOCE-SB006-04-030110
F71731-3	03/01/10	12:08	KW	03/03/10	SO	Soil	MPT-AOCE-SS008-0.5-030110
F71731-4	03/01/10	12:15	KW	03/03/10	SO	Soil	MPT-AOCE-SS008-04-030110
F71731-5	03/01/10	13:00	KW	03/03/10	SO	Soil	MPT-AOCE-SS010-0.5-030110
F71731-5D	03/01/10	13:00	KW	03/03/10	SO	Soil Dup/MSD	MPT-AOCE-SS010-0.5-030110
F71731-5S	03/01/10	13:00	KW	03/03/10	SO	Soil Matrix Spike	MPT-AOCE-SS010-0.5-030110
F71731-6	03/01/10	13:05	KW	03/03/10	SO	Soil	MPT-AOCE-SS010-04-030110
F71731-7	03/01/10	14:05	KW	03/03/10	SO	Soil	MPT-AOCE-SS002-0.5-030110
F71731-8	03/01/10	14:10	KW	03/03/10	SO	Soil	MPT-AOCE-SS002-04-030110
F71731-9	03/01/10	14:30	KW	03/03/10	SO	Soil	MPT-AOCE-SS001-0.5-030110
F71731-10	03/01/10	14:35	KW	03/03/10	SO	Soil	MPT-AOCE-SS001-04-030110

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Empirical Labs **Job No:** F71731

Site: NAS Mayport **Report Date:** 3/19/2010 2:25:52 PM

10 Samples were collected on 03/01/2010 and were received at Accutest SE on 03/03/2010 properly preserved, at 3.8 Deg. C and intact. These Samples received an Accutest job number of F71731. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC by Method MADEP VPH

Matrix: SO **Batch ID:** GUV2201

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F71731-5DUP, F71731-5MS, F71731-5MSD were used as the QC samples indicated.

Extractables by GC by Method MADEP EPH REV 1.1

Matrix: SO **Batch ID:** M: OP20804

F71731-9: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-8: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-7: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-6: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-5: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-4: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-3: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-2: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-10: Analysis performed at Accutest Laboratories, Marlborough, MA.

F71731-1: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry by Method SM19 2540B M

Matrix: SO **Batch ID:** GN38686

Sample F71731-5DUP was used as the QC sample for Solids, Percent.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: March 19, 2010

Ellen Pampel, Inorganic QA (signature on file)

Friday, March 19, 2010

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Accutest Laboratories Southeast, Inc.	**Job No**	F71731
Site:	TETRPAPT: NAUSTA Mayport	**Report Date**	3/18/2010 3:22:51 PM

10 Sample(s) were collected on 03/01/2010 and were received at Accutest on 03/03/2010 properly preserved, at 1.3 Deg. C and intact. These Samples received an Accutest job number of F71731. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GC By Method MADEP EPH REV 1.1

Matrix SO **Batch ID:** OP20804

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) F71731-5MS, F71731-5MSD were used as the QC samples indicated.
- F71731-9 for 1-Chlorooctadecane: Outside control limits due to possible matrix interference. Confirmed by refractionation.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(F71731).

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS006-0.5-030110		
Lab Sample ID:	F71731-1	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	83.9
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038328.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.41 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	1900 U	3600	1900	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1400 U	2600	1400	ug/kg	
	C9- C10 Aromatics (Unadj.)	470 U	950	470	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	85%		70-130%
460-00-4	BFB	83%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS006-0.5-030110		
Lab Sample ID:	F71731-1	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	83.9
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37688.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	95200	21000	21000	ug/kg	
	C9-C18 Aliphatics	29500	11000	11000	ug/kg	
	C19-C36 Aliphatics	660000	11000	11000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		40-140%
321-60-8	2-Fluorobiphenyl	79%		40-140%
580-13-2	2-Bromonaphthalene	71%		40-140%
3386-33-2	1-Chlorooctadecane	59%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SB006-04-030110		
Lab Sample ID:	F71731-2	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	94.4
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038329.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.13 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	1800 U	3300	1800	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1300 U	2400	1300	ug/kg	
	C9- C10 Aromatics (Unadj.)	440 U	880	440	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	94%		70-130%
460-00-4	BFB	93%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SB006-04-030110		
Lab Sample ID:	F71731-2	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	94.4
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37689.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	18000 U	18000	18000	ug/kg	
	C9-C18 Aliphatics	9200 U	9200	9200	ug/kg	
	C19-C36 Aliphatics	10300	9200	9200	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		40-140%
321-60-8	2-Fluorobiphenyl	78%		40-140%
580-13-2	2-Bromonaphthalene	73%		40-140%
3386-33-2	1-Chlorooctadecane	58%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS008-0.5-030110		
Lab Sample ID:	F71731-3	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	94.3
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038330.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.03 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	1800 U	3400	1800	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1300 U	2500	1300	ug/kg	
	C9- C10 Aromatics (Unadj.)	450 U	900	450	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	101%		70-130%
460-00-4	BFB	99%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS008-0.5-030110		
Lab Sample ID:	F71731-3	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	94.3
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37690.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	19000 U	19000	19000	ug/kg	
	C9-C18 Aliphatics	9400 U	9400	9400	ug/kg	
	C19-C36 Aliphatics	68800	9400	9400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		40-140%
321-60-8	2-Fluorobiphenyl	72%		40-140%
580-13-2	2-Bromonaphthalene	67%		40-140%
3386-33-2	1-Chlorooctadecane	63%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS008-04-030110		
Lab Sample ID:	F71731-4	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	92.8
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038333.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.09 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	1800 U	3400	1800	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1400 U	2500	1400	ug/kg	
	C9- C10 Aromatics (Unadj.)	450 U	900	450	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	87%		70-130%
460-00-4	BFB	85%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS008-04-030110		
Lab Sample ID:	F71731-4	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	92.8
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37711.D	1	03/17/10	AMA	03/08/10	M:OP20804	M:GBC1918
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	19000 U	19000	19000	ug/kg	
	C9-C18 Aliphatics	9600 U	9600	9600	ug/kg	
	C19-C36 Aliphatics	9600 U	9600	9600	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	69%		40-140%
321-60-8	2-Fluorobiphenyl	75%		40-140%
580-13-2	2-Bromonaphthalene	57%		40-140%
3386-33-2	1-Chlorooctadecane	60%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS010-0.5-030110		
Lab Sample ID:	F71731-5	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	94.0
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038334.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.51 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	2000 U	3700	2000	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1500 U	2700	1500	ug/kg	
	C9- C10 Aromatics (Unadj.)	490 U	980	490	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	98%		70-130%
460-00-4	BFB	96%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS010-0.5-030110		
Lab Sample ID:	F71731-5	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	94.0
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37595.D	1	03/11/10	AMA	03/08/10	M:OP20804	M:GBC1913
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	19000 U	19000	19000	ug/kg	
	C9-C18 Aliphatics	9300 U	9300	9300	ug/kg	
	C19-C36 Aliphatics	14400	9300	9300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	58%		40-140%
321-60-8	2-Fluorobiphenyl	70%		40-140%
580-13-2	2-Bromonaphthalene	70%		40-140%
3386-33-2	1-Chlorooctadecane	50%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS010-04-030110		
Lab Sample ID:	F71731-6	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	96.0
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038335.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.48 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	1900 U	3600	1900	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1500 U	2700	1500	ug/kg	
	C9- C10 Aromatics (Unadj.)	480 U	970	480	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	88%		70-130%
460-00-4	BFB	85%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS010-04-030110		
Lab Sample ID:	F71731-6	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	96.0
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37692.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.8 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	18000 U	18000	18000	ug/kg	
	C9-C18 Aliphatics	8900 U	8900	8900	ug/kg	
	C19-C36 Aliphatics	8900 U	8900	8900	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		40-140%
321-60-8	2-Fluorobiphenyl	79%		40-140%
580-13-2	2-Bromonaphthalene	74%		40-140%
3386-33-2	1-Chlorooctadecane	54%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS002-0.5-030110		
Lab Sample ID:	F71731-7	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	94.7
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038336.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.04 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	1800 U	3300	1800	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1300 U	2500	1300	ug/kg	
	C9- C10 Aromatics (Unadj.)	450 U	890	450	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	96%		70-130%
460-00-4	BFB	93%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS002-0.5-030110		
Lab Sample ID:	F71731-7	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	94.7
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37693.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	19000 U	19000	19000	ug/kg	
	C9-C18 Aliphatics	9300 U	9300	9300	ug/kg	
	C19-C36 Aliphatics	21500	9300	9300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		40-140%
321-60-8	2-Fluorobiphenyl	79%		40-140%
580-13-2	2-Bromonaphthalene	66%		40-140%
3386-33-2	1-Chlorooctadecane	62%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS002-04-030110		
Lab Sample ID:	F71731-8	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	91.3
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038337.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.66 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	2000 U	3700	2000	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1500 U	2700	1500	ug/kg	
	C9- C10 Aromatics (Unadj.)	490 U	990	490	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	90%		70-130%
460-00-4	BFB	87%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS002-04-030110		
Lab Sample ID:	F71731-8	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	91.3
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37694.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	19000 U	19000	19000	ug/kg	
	C9-C18 Aliphatics	9700 U	9700	9700	ug/kg	
	C19-C36 Aliphatics	17300	9700	9700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		40-140%
321-60-8	2-Fluorobiphenyl	78%		40-140%
580-13-2	2-Bromonaphthalene	72%		40-140%
3386-33-2	1-Chlorooctadecane	62%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS001-0.5-030110		
Lab Sample ID:	F71731-9	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	89.1
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038338.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.52 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	2100 U	3900	2100	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1600 U	2900	1600	ug/kg	
	C9- C10 Aromatics (Unadj.)	520 U	1000	520	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	90%		70-130%
460-00-4	BFB	87%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS001-0.5-030110		
Lab Sample ID:	F71731-9	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	89.1
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37695.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	20000 U	20000	20000	ug/kg	
	C9-C18 Aliphatics	9800 U	9800	9800	ug/kg	
	C19-C36 Aliphatics	16100	9800	9800	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	42%		40-140%
321-60-8	2-Fluorobiphenyl	78%		40-140%
580-13-2	2-Bromonaphthalene	70%		40-140%
3386-33-2	1-Chlorooctadecane	36% [b]		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.
(b) Outside control limits due to possible matrix interference. Confirmed by refractionation.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS001-04-030110		
Lab Sample ID:	F71731-10	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP VPH	**Percent Solids:**	93.5
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV038339.D	1	03/05/10	AH	n/a	n/a	GUV2201
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.18 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	2100 U	3900	2100	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1600 U	2900	1600	ug/kg	
	C9- C10 Aromatics (Unadj.)	530 U	1100	530	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	89%		70-130%
460-00-4	BFB	86%		70-130%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MPT-AOCE-SS001-04-030110		
Lab Sample ID:	F71731-10	**Date Sampled:**	03/01/10
Matrix:	SO - Soil	**Date Received:**	03/03/10
Method:	MADEP EPH REV 1.1 SW846 3545	**Percent Solids:**	93.5
Project:	NAS Mayport		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC37697.D	1	03/16/10	AMA	03/08/10	M:OP20804	M:GBC1917
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	19000 U	19000	19000	ug/kg	
	C9-C18 Aliphatics	9500 U	9500	9500	ug/kg	
	C19-C36 Aliphatics	9500 U	9500	9500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		40-140%
321-60-8	2-Fluorobiphenyl	83%		40-140%
580-13-2	2-Bromonaphthalene	73%		40-140%
3386-33-2	1-Chlorooctadecane	70%		40-140%

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 0966 F71731 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00871	NAVSTA MAYPORT	GREG ROOF	904-636-6125	ACCUTEST - HEATHER
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
K. Weichert		KEVIN WEICHERT	904-636-6125	4405 VINELAND ROAD SUITE C-15
		CARRIER/WAYBILL NUMBER		CITY, STATE
		COURRIER PICK UP		ORLANDO, FL

STANDARD TAT ☒
RUSH TAT ☐ ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: - MeOH
TYPE OF ANALYSIS: BMAEPHR- / VMAUPHR-5035 MeOH / VMAUPHR-5035

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	BMAEPHR-	VMAUPHR-5035 MeOH	VMAUPHR-5035					COMMENTS
1	03/01	1110	MPT-AOCE-SS006-05-030110				SO	G		1	1	2					COOL TO 4°C
2		1123	MPT-AOCE-SB006-04-030110				SO	G		1	1	2					
3		1208	MPT-AOCE-SS008-05-030110				SO	G		1	1	2					
4		1215	MPT-AOCE-SB008-04-030110				SO	G		1	1	2					
5		1300	MPT-AOCE-SS010-05-030110				SO	G		3	3	6					MS/MSD
6		1305	MPT-AOCE-SB010-04-030110				SO	G		1	1	2					
7		1405	MPT-AOCE-SS002-05-030110				SO	G		1	1	2					
8		1410	MPT-AOCE-SB002-04-030110				SO	G		1	1	2					
9		1430	MPT-AOCE-SS001-05-030110				SO	G		1	1	2					
10		1435	MPT-AOCE-SB001-04-030110				SO	G		1	1	2					
																	48 hr. hold times
			TEMP BLANK														

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY K. Weichert	3-2-10		1. RECEIVED BY [signature]	3-2-10	1600
2. RELINQUISHED BY [signature]	3-2-10	1942	2. RECEIVED BY [signature] (ACCUTEST)	03-03-10	08:00
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS 3.8

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

4.1 4

F71731: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F 71731 CLIENT: TETRA TECH NUS PROJECT: 112 600 871

DATE/TIME RECEIVED: 03-03-10 08:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ?

NUMBER OF 5035 FIELD KITS ? 12

NUMBER OR LAB FILTERED METALS ?

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR 0
- [ ] OBSERVED TEMPS: 3.8
- [ ] CORRECTED TEMPS: 3.8

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE JC 03-03-10 REVIEWER SIGNATURE/DATE E 03-03-10

NF 10/09 RECEIPT CONFIRMATION 100609 (2).xls

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F71731: Chain of Custody

Page 2 of 2

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUV2201-MB	UV038322.D	1	03/05/10	AH	n/a	n/a	GUV2201

The QC reported here applies to the following samples: **Method:** MADEP VPH

F71731-1, F71731-2, F71731-3, F71731-4, F71731-5, F71731-6, F71731-7, F71731-8, F71731-9, F71731-10

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	3800	2000	ug/kg	
	C9- C12 Aliphatics (Unadj.)	ND	2800	1500	ug/kg	
	C9- C10 Aromatics (Unadj.)	ND	1000	510	ug/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	BFB	99%	70-130%
460-00-4	BFB	96%	70-130%

Blank Spike Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUV2201-BS	UV038321.D	1	03/05/10	AH	n/a	n/a	GUV2201

The QC reported here applies to the following samples: **Method:** MADEP VPH

F71731-1, F71731-2, F71731-3, F71731-4, F71731-5, F71731-6, F71731-7, F71731-8, F71731-9, F71731-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
	C5- C8 Aliphatics (Unadj.)	25000	28300	113	70-130
	C9- C12 Aliphatics (Unadj.)	25000	27000	108	70-130
	C9- C10 Aromatics (Unadj.)	4160	4560	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	BFB	112%	70-130%
460-00-4	BFB	110%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F71731-5MS	UV038347.D	1	03/06/10	AH	n/a	n/a	GUV2201
F71731-5MSD	UV038348.D	1	03/06/10	AH	n/a	n/a	GUV2201
F71731-5	UV038334.D	1	03/05/10	AH	n/a	n/a	GUV2201

The QC reported here applies to the following samples: **Method:** MADEP VPH

F71731-1, F71731-2, F71731-3, F71731-4, F71731-5, F71731-6, F71731-7, F71731-8, F71731-9, F71731-10

CAS No.	Compound	F71731-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
	C5- C8 Aliphatics (Unadj.)	3700	U	24100	19700	82	20000	83	2	70-130/50
	C9- C12 Aliphatics (Unadj.)	2700	U	24100	19900	83	20300	84	2	70-130/50
	C9- C10 Aromatics (Unadj.)	980	U	4020	3840	96	3760	94	2	70-130/50

CAS No.	Surrogate Recoveries	MS	MSD	F71731-5	Limits
460-00-4	BFB	95%	100%	98%	70-130%
460-00-4	BFB	91%	97%	96%	70-130%

Duplicate Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F71731-5DUP	UV038346.D	1	03/05/10	AH	n/a	n/a	GUV2201
F71731-5	UV038334.D	1	03/05/10	AH	n/a	n/a	GUV2201

The QC reported here applies to the following samples: **Method:** MADEP VPH

F71731-1, F71731-2, F71731-3, F71731-4, F71731-5, F71731-6, F71731-7, F71731-8, F71731-9, F71731-10

CAS No.	Compound	F71731-5 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
	C5- C8 Aliphatics (Unadj.)	3700 U		ND		nc	30 [a]
	C9- C12 Aliphatics (Unadj.)	2700 U		ND		nc	30 [a]
	C9- C10 Aromatics (Unadj.)	980 U		ND		nc	30 [a]

CAS No.	Surrogate Recoveries	DUP	F71731-5	Limits
460-00-4	BFB	90%	98%	70-130%
460-00-4	BFB	88%	96%	70-130%

(a) Advisory control limits.

Volatile Surrogate Recovery Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Method: MADEP VPH **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
F71731-1	UV038328.D	85.0	83.0
F71731-2	UV038329.D	94.0	93.0
F71731-3	UV038330.D	101.0	99.0
F71731-4	UV038333.D	87.0	85.0
F71731-5	UV038334.D	98.0	96.0
F71731-6	UV038335.D	88.0	85.0
F71731-7	UV038336.D	96.0	93.0
F71731-8	UV038337.D	90.0	87.0
F71731-9	UV038338.D	90.0	87.0
F71731-10	UV038339.D	89.0	86.0
F71731-5DUP	UV038346.D	90.0	88.0
F71731-5MS	UV038347.D	95.0	91.0
F71731-5MSD	UV038348.D	100.0	97.0
GUV2201-BS	UV038321.D	112.0	110.0
GUV2201-MB	UV038322.D	99.0	96.0

Surrogate Compounds	Recovery Limits
S1 = BFB	70-130%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Check Std:	GUV2201-CC2172	**Injection Date:**	03/05/10
Lab File ID:	UV038320.D	**Injection Time:**	09:15
Instrument ID:	GCUV	**Method:**	MADEP VPH

	S1 [a] RT	S1 [b] RT
Check Std	19.43	19.43

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GUV2201-BS	UV038321.D	03/05/10	09:47	19.43	19.43
GUV2201-MB	UV038322.D	03/05/10	10:19	19.44	19.44
ZZZZZZ	UV038323.D	03/05/10	11:30	19.42	19.43
ZZZZZZ	UV038324.D	03/05/10	12:02	19.43	19.43
ZZZZZZ	UV038325.D	03/05/10	12:34	19.43	19.43
ZZZZZZ	UV038326.D	03/05/10	13:06	19.44	19.44
ZZZZZZ	UV038327.D	03/05/10	13:38	19.44	19.44
F71731-1	UV038328.D	03/05/10	14:10	19.44	19.44
F71731-2	UV038329.D	03/05/10	14:42	19.43	19.44
F71731-3	UV038330.D	03/05/10	15:14	19.43	19.43

Surrogate Compounds

S1 = BFB

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Check Std:	GUV2201-CC2172	**Injection Date:**	03/05/10
Lab File ID:	UV038331.D	**Injection Time:**	15:46
Instrument ID:	GCUV	**Method:**	MADEP VPH

	S1 [a] RT	S1 [b] RT
Check Std	19.43	19.43

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
F71731-4	UV038333.D	03/05/10	16:50	19.44	19.44
F71731-5	UV038334.D	03/05/10	17:22	19.43	19.43
F71731-6	UV038335.D	03/05/10	17:54	19.44	19.44
F71731-7	UV038336.D	03/05/10	18:26	19.43	19.43
F71731-8	UV038337.D	03/05/10	18:58	19.43	19.43
F71731-9	UV038338.D	03/05/10	19:30	19.43	19.43
F71731-10	UV038339.D	03/05/10	20:02	19.44	19.44

Surrogate Compounds

S1 = BFB

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Check Std:	GUV2201-CC2172	**Injection Date:**	03/05/10
Lab File ID:	UV038342.D	**Injection Time:**	21:38
Instrument ID:	GCUV	**Method:**	MADEP VPH

	S1 [a] RT	S1 [b] RT
Check Std	19.43	19.43

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
F71731-5DUP	UV038346.D	03/05/10	23:46	19.43	19.44
F71731-5MS	UV038347.D	03/06/10	00:18	19.43	19.43
F71731-5MSD	UV038348.D	03/06/10	00:49	19.44	19.44
GUV2201-ECC2172	UV038349.D	03/06/10	01:21	19.43	19.44

Surrogate Compounds

S1 = BFB

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport
Sample: GUV2172-ICC2172
Lab FileID: UV037866.D

Response Factor Report VOA4

Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration

Calibration Files
1 =UV037863.D 2 =UV037864.D 3 =UV037865.D 4 =UV037866.D
5 =UV037867.D 6 =UV037868.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)		Methyl tert butyl e	4.007	4.215	3.961	3.878	3.760	3.846	3.944	E2	4.02
2)		Benzene	2.148	2.227	2.015	2.043	1.969	2.035	2.073	E3	4.62
3)		Toluene	2.313	2.338	2.257	2.405	2.269	2.064	2.274	E3	5.09
4)		Ethylbenzene	2.468	2.593	2.435	2.476	2.346	2.366	2.447	E3	3.63
5)		m,p-Xylene	2.800	2.848	2.822	2.820	2.218	1.853	2.560	E3	16.51
6)		o-Xylene	2.556	2.610	2.482	2.564	2.373	2.295	2.480	E3	4.96
7)	S	BFB	6.296	6.623	6.597	6.917	5.549	4.807	6.132	E4	13.04
8)		1,2,4-Trimethylbenz	2.622	2.764	2.652	2.736	2.535	2.417	2.621	E3	4.94
9)		Naphthalene	4.574	6.130	9.223	9.348	8.231	7.784	7.548	E2	24.73
		---- Quadratic regression ---- Coefficient = 0.9980									
		Response Ratio = -9206.05920 + 1060.91476 *A + -0.65998 *A^2									
10)	H	C9- C10 Aromatics (	1.321	0.928	0.812	0.771	0.700	0.674	0.867	E5	27.63
		---- Linear regression ---- Coefficient = 0.9981									
		Response Ratio = 1162348.60737 + 65390.83497 *A									

Signal #2

12)		Pentane	5.540	5.664	5.160	5.325	4.800	4.881	5.228	E2	6.65
13)		2-Methylpentane	5.721	5.999	5.437	5.534	5.026	5.127	5.474	E2	6.65
14)		Methyl tert butyl e	2.910	2.807	2.684	2.711	2.596	2.604	2.719	E2	4.48
15)		2,2,4-Trimethylpent	6.226	6.092	5.463	5.504	4.763	4.762	5.468	E2	11.45
16)		Benzene #2	1.175	1.207	1.148	1.168	1.100	1.125	1.154	E3	3.28
17)		Toluene #2	1.387	1.488	1.417	1.466	1.384	1.401	1.424	E3	3.03
18)		Nonane	1.416	1.452	1.389	1.401	1.292	1.310	1.377	E3	4.53
19)		Ethylbenzene #2	1.692	1.767	1.691	1.740	1.629	1.629	1.691	E3	3.32
20)		m,p-Xylene #2	1.639	1.737	1.673	1.737	1.624	1.624	1.672	E3	3.17
21)		o-Xylene #2	1.744	1.806	1.738	1.788	1.668	1.654	1.733	E3	3.55
22)	S	BFB #2	1.882	2.070	2.072	2.194	2.085	2.086	2.065	E4	4.88
23)		1,2,4-Trimethylbenz	1.671	1.768	1.729	1.769	1.656	1.656	1.708	E3	3.17
24)		Naphthalene #2	2.492	2.918	4.357	4.595	4.091	3.790	3.707	E2	22.45
25)	H	C5- C8 Aliphatics (	6.422	4.391	3.833	3.769	3.350	3.358	4.187	E4	27.69
		---- Linear regression ---- Coefficient = 0.9984									
		Response Ratio = 3551873.19892 + 32439.50121 *A									
26)	H	C9- C12 Aliphatics	8.391	6.285	5.748	5.638	5.250	5.218	6.088	E4	19.60
		---- Linear regression ---- Coefficient = 0.9994									
		Response Ratio = 2735894.64203 + 51089.00938 *A									

(#) = Out of Range

MAVPHUV.M Fri Feb 05 14:04:27 2010

Initial Calibration Verification

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport
Sample: GUV2172-ICV2172
Lab FileID: UV037869.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\020410\UV037869.D\FID1B.CH  Vial: 22
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037869.D\FID2A.CH
Acq On    :  4 Feb 2010   3:14 pm                    Operator: ArielH
Sample    : icv2172-4                                Inst    : VOA4
Misc      : gc10598,guv2172,,,,,                     Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: FID.E

Method       : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title        : Mass. DEP VPH
Last Update  : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	240.000	240.945	-0.4	102	-0.02	8.86- 9.06
2	Benzene	80.000	76.669	4.2	97	-0.01	12.32-12.73
3	Toluene	240.000	248.733	-3.6	98	-0.01	15.38-15.78
4	Ethylbenzene	80.000	78.434	2.0	97	-0.01	17.77-18.17
5	m,p-Xylene	320.000	340.005	-6.3	96	0.00	17.87-18.27
6	o-Xylene	160.000	161.740	-1.1	98	-0.01	18.47-18.87
7 S	BFB	160.000	179.109	-11.9	99	-0.01	19.23-19.63
8	1,2,4-Trimethylbenzene	160.000	156.922	1.9	94	-0.01	20.00-20.40
	----------	Amount	Calc.	%Drift		----------	
9	Naphthalene	160.000	174.271	-8.9	104	0.00	23.04-23.44
10 H	C9- C10 Aromatics (una	160.000	161.344	-0.8	95	0.00	18.76-23.15

***** Signal #2 *****

	----------	Amount	Calc.	%Drift		----------	
12	Pentane	160.000	113.455	29.1#	70	-0.02	6.99- 7.39
13	2-Methylpentane	240.000	218.543	8.9	90	-0.02	8.35- 8.71
14	Methyl tert butyl ethe	240.000	246.822	-2.8	103	-0.02	8.76- 9.16
15	2,2,4-Trimethylpentane	240.000	233.693	2.6	97	-0.02	11.64-12.04
16	Benzene #2	80.000	79.407	0.7	98	-0.01	12.33-12.73
17	Toluene #2	240.000	242.601	-1.1	98	-0.01	15.38-15.78
18	Nonane	160.000	155.500	2.8	96	0.00	17.35-17.75
19	Ethylbenzene #2	80.000	79.445	0.7	97	-0.01	17.77-18.17
20	m,p-Xylene #2	320.000	323.574	-1.1	97	0.00	17.87-18.27
21	o-Xylene #2	160.000	160.980	-0.6	98	-0.01	18.47-18.87
22 S	BFB #2	160.000	170.390	-6.5	100	-0.01	19.23-19.63
23	1,2,4-Trimethylbenzene	160.000	156.794	2.0	95	-0.01	20.00-20.40
24	Naphthalene #2	160.000	208.668	-30.4#	105	0.00	23.04-23.44
25 H	C5- C8 Aliphatics (una	1200.000	1178.354	1.8	92	0.00	6.92-15.40
26 H	C9- C12 Aliphatics (un	880.000	886.091	-0.7	97	0.00	17.40-23.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
UV037866.D MAVPHUV.M Fri Feb 05 14:03:02 2010

Continuing Calibration Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport
Sample: GUV2201-CC2172
Lab FileID: UV038320.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\030510\UV038320.D\FID1B.CH  Vial: 1
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038320.D\FID2A.CH
Acq On    :  5 Mar 2010   9:15 am                    Operator: ArielH
Sample    : cc2172-4                                 Inst    : VOA4
Misc      : gc10702,guv2201,5.00,,100,5.1,,soil      Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: FID.E

Method       : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title        : Mass. DEP VPH
Last Update  : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	240.000	209.450	12.7	89	-0.02	8.86- 9.06
2	Benzene	80.000	82.008	-2.5	104	0.00	12.32-12.73
3	Toluene	240.000	258.182	-7.6	102	0.00	15.38-15.78
4	Ethylbenzene	80.000	83.045	-3.8	103	0.00	17.77-18.17
5	m,p-Xylene	320.000	351.413	-9.8	100	0.00	17.87-18.27
6	o-Xylene	160.000	162.990	-1.9	99	0.00	18.47-18.87
7 S	BFB	160.000	168.406	-5.3	93	0.00	19.23-19.63
8	1,2,4-Trimethylbenzene	160.000	167.211	-4.5	100	0.00	20.00-20.40
	----------	Amount	Calc.	%Drift			----------
9	Naphthalene	160.000	138.013	13.7	83	0.00	23.04-23.44
10 H	C9- C10 Aromatics (una	160.000	169.423	-5.9	99	0.00	18.76-23.15

***** Signal #2 *****

	----------	Amount	Calc.	%Drift			----------
12	Pentane	160.000	161.042	-0.7	99	0.00	6.99- 7.39
13	2-Methylpentane	240.000	236.879	1.3	98	0.00	8.35- 8.71
14	Methyl tert butyl ethe	240.000	209.646	12.6	88	-0.01	8.76- 9.16
15	2,2,4-Trimethylpentane	240.000	233.384	2.8	97	0.00	11.64-12.04
16	Benzene #2	80.000	81.983	-2.5	101	-0.01	12.33-12.73
17	Toluene #2	240.000	249.913	-4.1	101	0.00	15.38-15.78
18	Nonane	160.000	172.583	-7.9	106	0.00	17.35-17.75
19	Ethylbenzene #2	80.000	83.064	-3.8	101	0.00	17.77-18.17
20	m,p-Xylene #2	320.000	332.290	-3.8	100	0.00	17.87-18.27
21	o-Xylene #2	160.000	163.603	-2.3	99	0.00	18.47-18.87
22 S	BFB #2	160.000	158.588	0.9	93	0.00	19.23-19.63
23	1,2,4-Trimethylbenzene	160.000	166.518	-4.1	100	0.00	20.00-20.40
24	Naphthalene #2	160.000	162.426	-1.5	82	0.00	23.04-23.44
25 H	C5- C8 Aliphatics (una	1200.000	1242.974	-3.6	97	0.00	6.92-15.40
26 H	C9- C12 Aliphatics (un	880.000	930.125	-5.7	101	0.00	17.40-23.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
UV037866.D MAVPHUV.M Mon Mar 08 12:51:04 2010

Continuing Calibration Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport
Sample: GUV2201-CC2172
Lab FileID: UV038331.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\030510\UV038331.D\FID1B.CH  Vial: 12
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038331.D\FID2A.CH
Acq On    :  5 Mar 2010   3:46 pm                    Operator: ArielH
Sample    : cc2172-3                                 Inst    : VOA4
Misc      : gc10702,guv2201,5.00,,100,5.1,,soil      Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: FID.E

Method       : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title        : Mass. DEP VPH
Last Update  : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	120.000	116.075	3.3	96	0.00	8.86- 9.06
2	Benzene	40.000	39.443	1.4	101	0.01	12.32-12.73
3	Toluene	120.000	108.525	9.6	91	0.00	15.38-15.78
4	Ethylbenzene	40.000	36.835	7.9	93	0.00	17.77-18.17
5	m,p-Xylene	160.000	162.765	-1.7	92	0.00	17.87-18.27
6	o-Xylene	80.000	73.274	8.4	92	0.00	18.47-18.87
7 S	BFB	80.000	84.497	-5.6	98	0.00	19.23-19.63
8	1,2,4-Trimethylbenzene	80.000	75.546	5.6	93	0.00	20.00-20.40
	----------	Amount	Calc.	%Drift	----------		
9	Naphthalene	80.000	97.680	-22.1	119	0.00	23.04-23.44
10 H	C9- C10 Aromatics (una	80.000	83.839	-4.8	102	0.00	18.76-23.15

***** Signal #2 *****

	----------	Amount	Calc.	%Drift	----------		
12	Pentane	80.000	71.690	10.4	91	0.01	6.99- 7.39
13	2-Methylpentane	120.000	109.171	9.0	92	0.00	8.35- 8.71
14	Methyl tert butyl ethe	120.000	111.855	6.8	94	0.00	8.76- 9.16
15	2,2,4-Trimethylpentane	120.000	108.106	9.9	90	0.00	11.64-12.04
16	Benzene #2	40.000	39.359	1.6	99	0.01	12.33-12.73
17	Toluene #2	120.000	109.761	8.5	92	0.00	15.38-15.78
18	Nonane	80.000	76.555	4.3	95	0.00	17.35-17.75
19	Ethylbenzene #2	40.000	36.608	8.5	92	0.00	17.77-18.17
20	m,p-Xylene #2	160.000	147.888	7.6	92	0.00	17.87-18.27
21	o-Xylene #2	80.000	74.210	7.2	92	0.00	18.47-18.87
22 S	BFB #2	80.000	79.062	1.2	98	0.00	19.23-19.63
23	1,2,4-Trimethylbenzene	80.000	76.386	4.5	94	0.00	20.00-20.40
24	Naphthalene #2	80.000	115.139	-43.9#	122	0.00	23.04-23.44
25 H	C5- C8 Aliphatics (una	600.000	528.997	11.8	90	0.00	6.92-15.40
26 H	C9- C12 Aliphatics (un	440.000	399.861	9.1	92	0.00	17.40-23.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
UV037865.D MAVPHUV.M Mon Mar 08 12:51:33 2010

Continuing Calibration Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport
Sample: GUV2201-CC2172
Lab FileID: UV038342.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\030510\UV038342.D\FID1B.CH  Vial: 23
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038342.D\FID2A.CH
Acq On    :  5 Mar 2010   9:38 pm                    Operator: ArielH
Sample    : cc2172-3                                 Inst    : VOA4
Misc      : gc10702,guv2201,5.00,,100,5.1,,soil      Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: FID.E

Method       : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title        : Mass. DEP VPH
Last Update  : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	120.000	125.581	-4.7	104	0.01	8.86- 9.06
2	Benzene	40.000	34.467	13.8	89	0.02	12.32-12.73
3	Toluene	120.000	104.253	13.1	88	0.00	15.38-15.78
4	Ethylbenzene	40.000	34.959	12.6	88	0.00	17.77-18.17
5	m,p-Xylene	160.000	154.254	3.6	87	0.00	17.87-18.27
6	o-Xylene	80.000	71.989	10.0	90	0.00	18.47-18.87
7 S	BFB	80.000	80.275	-0.3	93	0.00	19.23-19.63
8	1,2,4-Trimethylbenzene	80.000	71.713	10.4	89	0.00	20.00-20.40
	----------	Amount	Calc.	%Drift	----------		
9	Naphthalene	80.000	114.048	-42.6#	140	0.00	23.04-23.44
10 H	C9- C10 Aromatics (una	80.000	83.459	-4.3	102	0.00	18.76-23.15

***** Signal #2 *****

	----------	Amount	Calc.	%Drift	----------		
12	Pentane	80.000	65.470	18.2	83	0.03	6.99- 7.39
13	2-Methylpentane	120.000	100.198	16.5	84	0.02	8.35- 8.71
14	Methyl tert butyl ethe	120.000	122.084	-1.7	103	0.02	8.76- 9.16
15	2,2,4-Trimethylpentane	120.000	101.280	15.6	84	0.02	11.64-12.04
16	Benzene #2	40.000	34.980	12.6	88	0.02	12.33-12.73
17	Toluene #2	120.000	106.117	11.6	89	0.00	15.38-15.78
18	Nonane	80.000	68.187	14.8	84	0.00	17.35-17.75
19	Ethylbenzene #2	40.000	35.203	12.0	88	0.00	17.77-18.17
20	m,p-Xylene #2	160.000	142.073	11.2	89	0.00	17.87-18.27
21	o-Xylene #2	80.000	72.593	9.3	90	0.00	18.47-18.87
22 S	BFB #2	80.000	74.985	6.3	93	0.00	19.23-19.63
23	1,2,4-Trimethylbenzene	80.000	72.425	9.5	89	0.00	20.00-20.40
24	Naphthalene #2	80.000	135.805	-69.8#	144	0.00	23.04-23.44
25 H	C5- C8 Aliphatics (una	600.000	511.688	14.7	88	0.00	6.92-15.40
26 H	C9- C12 Aliphatics (un	440.000	384.112	12.7	88	0.00	17.40-23.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
UV037865.D MAVPHUV.M Mon Mar 08 12:51:34 2010

Continuing Calibration Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport
Sample: GUV2201-ECC2172
Lab FileID: UV038349.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\030510\UV038349.D\FID1B.CH  Vial: 30
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038349.D\FID2A.CH
Acq On    :  6 Mar 2010   1:21 am                    Operator: ArielH
Sample    : ecc2172-3                                Inst    : VOA4
Misc      : gc10702,guv2201,5.00,,100,5.1,,soil      Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: FID.E

Method       : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title        : Mass. DEP VPH
Last Update  : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	120.000	125.070	-4.2	104	0.00	8.86- 9.06
2	Benzene	40.000	39.652	0.9	102	0.01	12.32-12.73
3	Toluene	120.000	114.936	4.2	97	0.01	15.38-15.78
4	Ethylbenzene	40.000	38.271	4.3	96	0.00	17.77-18.17
5	m,p-Xylene	160.000	159.311	0.4	90	0.00	17.87-18.27
6	o-Xylene	80.000	77.008	3.7	96	0.00	18.47-18.87
7 S	BFB	80.000	85.211	-6.5	99	0.00	19.23-19.63
8	1,2,4-Trimethylbenzene	80.000	63.559	20.6	79	0.00	20.00-20.40
	----------	Amount	Calc.	%Drift	----------		
9	Naphthalene	80.000	59.448	25.7#	70	0.00	23.04-23.44
10 H	C9- C10 Aromatics (una	80.000	66.370	17.0	85	0.00	18.76-23.15

***** Signal #2 *****

	----------	Amount	Calc.	%Drift	----------		
12	Pentane	80.000	70.773	11.5	90	0.02	6.99- 7.39
13	2-Methylpentane	120.000	109.964	8.4	92	0.01	8.35- 8.71
14	Methyl tert butyl ethe	120.000	124.144	-3.5	105	0.01	8.76- 9.16
15	2,2,4-Trimethylpentane	120.000	111.329	7.2	93	0.01	11.64-12.04
16	Benzene #2	40.000	40.816	-2.0	103	0.01	12.33-12.73
17	Toluene #2	120.000	116.137	3.2	97	0.01	15.38-15.78
18	Nonane	80.000	67.423	15.7	84	0.00	17.35-17.75
19	Ethylbenzene #2	40.000	38.533	3.7	96	0.00	17.77-18.17
20	m,p-Xylene #2	160.000	145.716	8.9	91	0.00	17.87-18.27
21	o-Xylene #2	80.000	78.119	2.4	97	0.00	18.47-18.87
22 S	BFB #2	80.000	80.519	-0.6	100	0.00	19.23-19.63
23	1,2,4-Trimethylbenzene	80.000	64.670	19.2	80	0.00	20.00-20.40
24	Naphthalene #2	80.000	67.203	16.0	71	0.00	23.04-23.44
25 H	C5- C8 Aliphatics (una	600.000	582.283	3.0	98	0.00	6.92-15.40
26 H	C9- C12 Aliphatics (un	440.000	384.715	12.6	89	0.00	17.40-23.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
UV037865.D MAVPHUV.M Mon Mar 08 12:51:34 2010

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038328.D\FID1B.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038328.D\FID2A.CH
Acq On : 5 Mar 2010 2:10 pm Operator: ArielH
Sample : f71731-1 Inst : VOA4
Misc : gc10702,guv2201,6.41,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:33 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.44	10474103	170.823	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	85.41%
22) S	BFB #2	19.44	3412654	165.271	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	82.64%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	0.00	0	N.D.	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	0.00	0	N.D.	ug/L
17)	Toluene #2	0.00	0	N.D.	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	0.00	0	N.D.	ug/L
21)	o-Xylene #2	0.00	0	N.D.	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

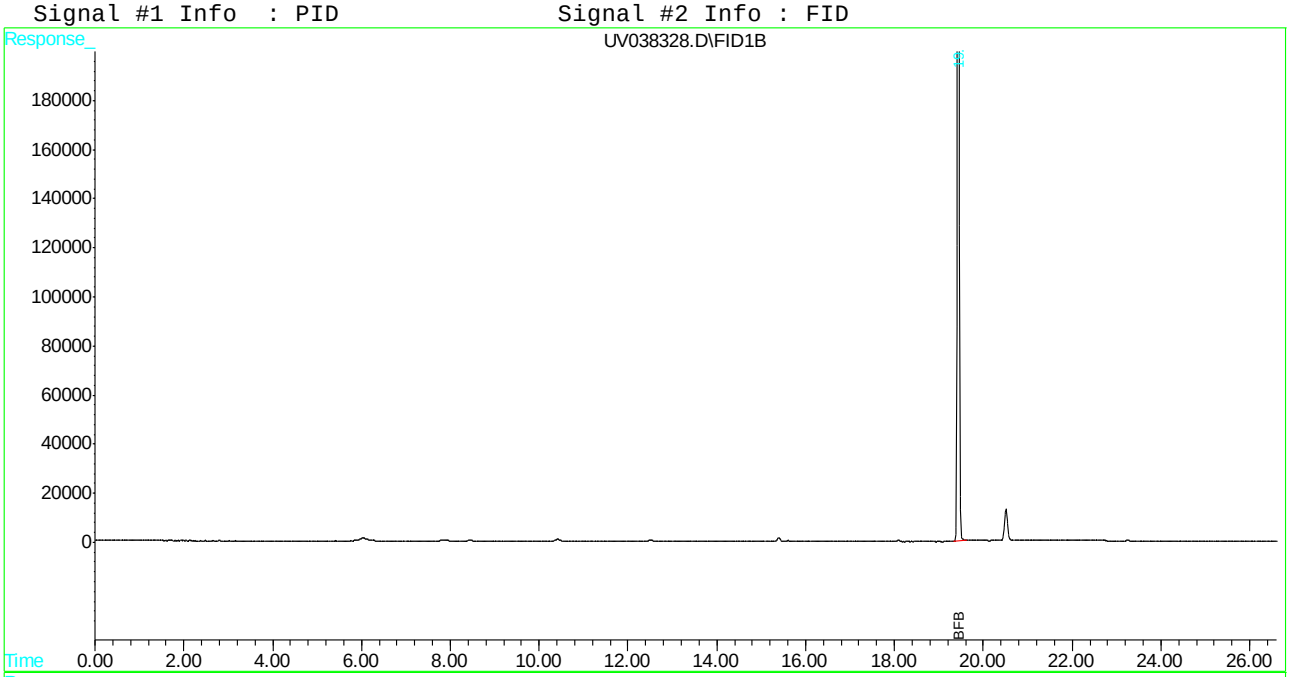
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038328.D MAVPHUV.M Mon Mar 08 11:44:52 2010

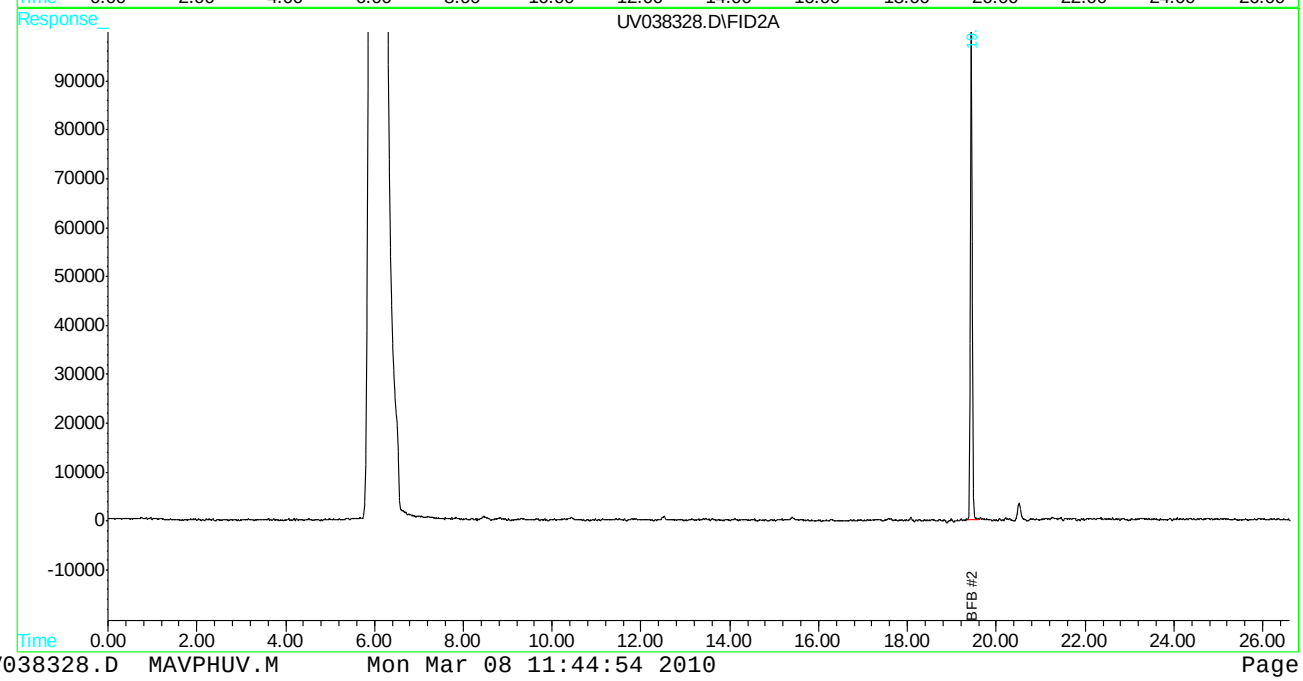
Quantitation Report (QT Reviewed)

```
Signal #1 : C:\HPCHEM\2\DATA\030510\UV038328.D\FID1B.CH  Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038328.D\FID2A.CH
Acq On    :  5 Mar 2010   2:10 pm                    Operator: ArielH
Sample    : f71731-1                                 Inst    : VOA4
Misc      : gc10702,guv2201,6.41,,100,5.1,,soil      Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: FID.E
Quant Time: Mar  8 11:33 2010  Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title        : Mass. DEP VPH
Last Update  : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj.     :
Signal #1 Phase : RTX-502.2          Signal #2 Phase: RTX-502.2
Signal #1 Info  : PID                Signal #2 Info : FID
```





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038329.D\FID1B.CH Vial: 10
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038329.D\FID2A.CH
Acq On : 5 Mar 2010 2:42 pm Operator: ArielH
Sample : f71731-2 Inst : VOA4
Misc : gc10702,guv2201,6.13,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:33 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	11571015	188.713	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	94.36%
22) S	BFB #2	19.44	3822825	185.135	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	92.57%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	0.00	0	N.D.	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	12.47	735	0.637	ug/L
17)	Toluene #2	0.00	0	N.D.	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	0.00	0	N.D.	ug/L
21)	o-Xylene #2	0.00	0	N.D.	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

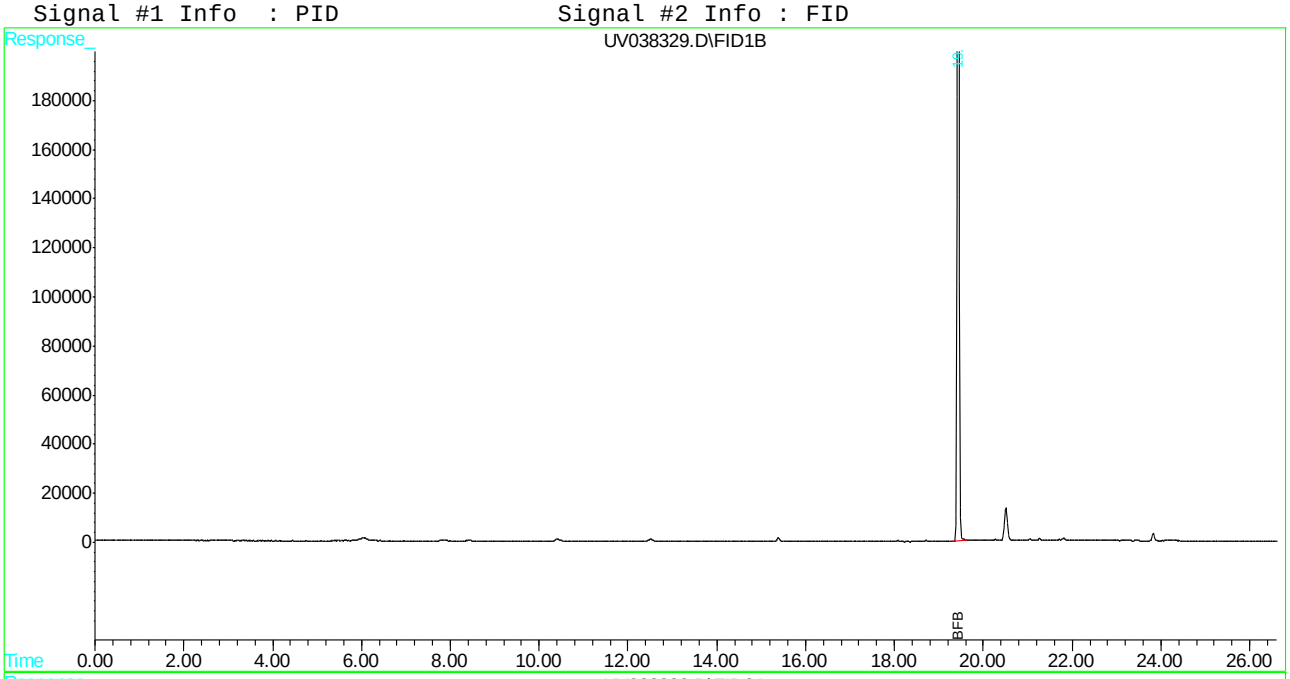
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038329.D MAVPHUV.M Mon Mar 08 11:44:55 2010

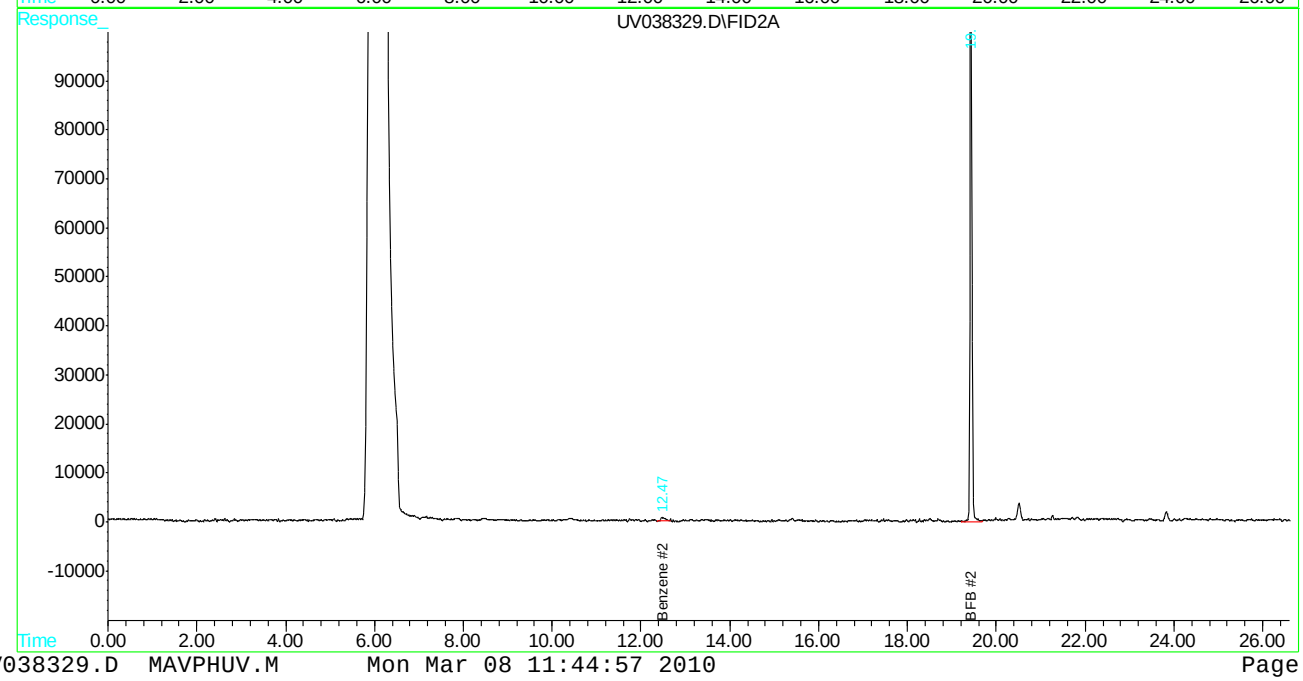
Quantitation Report (QT Reviewed)

```
Signal #1 : C:\HPCHEM\2\DATA\030510\UV038329.D\FID1B.CH  Vial: 10
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038329.D\FID2A.CH
Acq On    :  5 Mar 2010   2:42 pm                        Operator: ArielH
Sample    : f71731-2                                     Inst    : VOA4
Misc      : gc10702,guv2201,6.13,,100,5.1,,soil          Multiplr: 1.00
IntFile Signal #1: PID.E        IntFile Signal #2: FID.E
Quant Time: Mar  8 11:33 2010  Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title        : Mass. DEP VPH
Last Update  : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj.     :
Signal #1 Phase : RTX-502.2          Signal #2 Phase: RTX-502.2
Signal #1 Info  : PID                Signal #2 Info : FID
```





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038330.D\FID1B.CH Vial: 11
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038330.D\FID2A.CH
Acq On : 5 Mar 2010 3:14 pm Operator: ArielH
Sample : f71731-3 Inst : VOA4
Misc : gc10702,guv2201,6.03,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:33 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	12431401	202.745	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 101.37%
22) S	BFB #2	19.43	4070319	197.121	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 98.56%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	0.00	0	N.D.	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	0.00	0	N.D.	ug/L
17)	Toluene #2	0.00	0	N.D.	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	0.00	0	N.D.	ug/L
21)	o-Xylene #2	0.00	0	N.D.	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

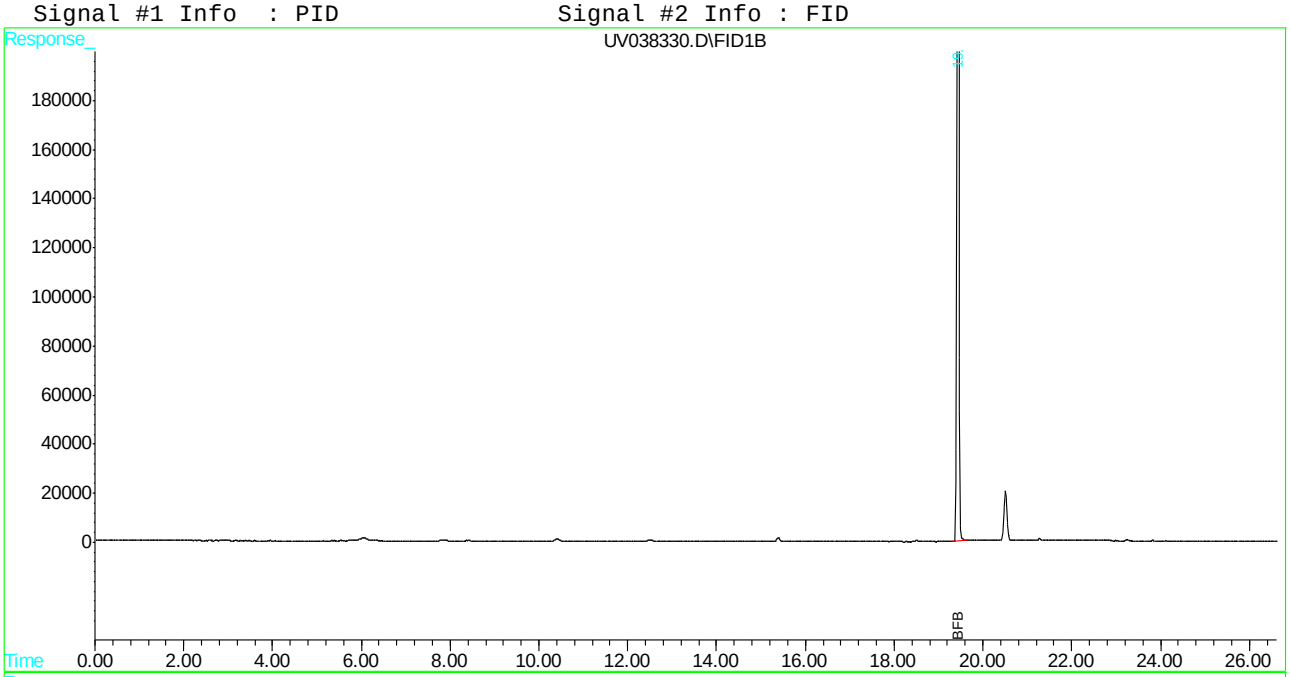
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038330.D MAVPHUV.M Mon Mar 08 11:45:00 2010

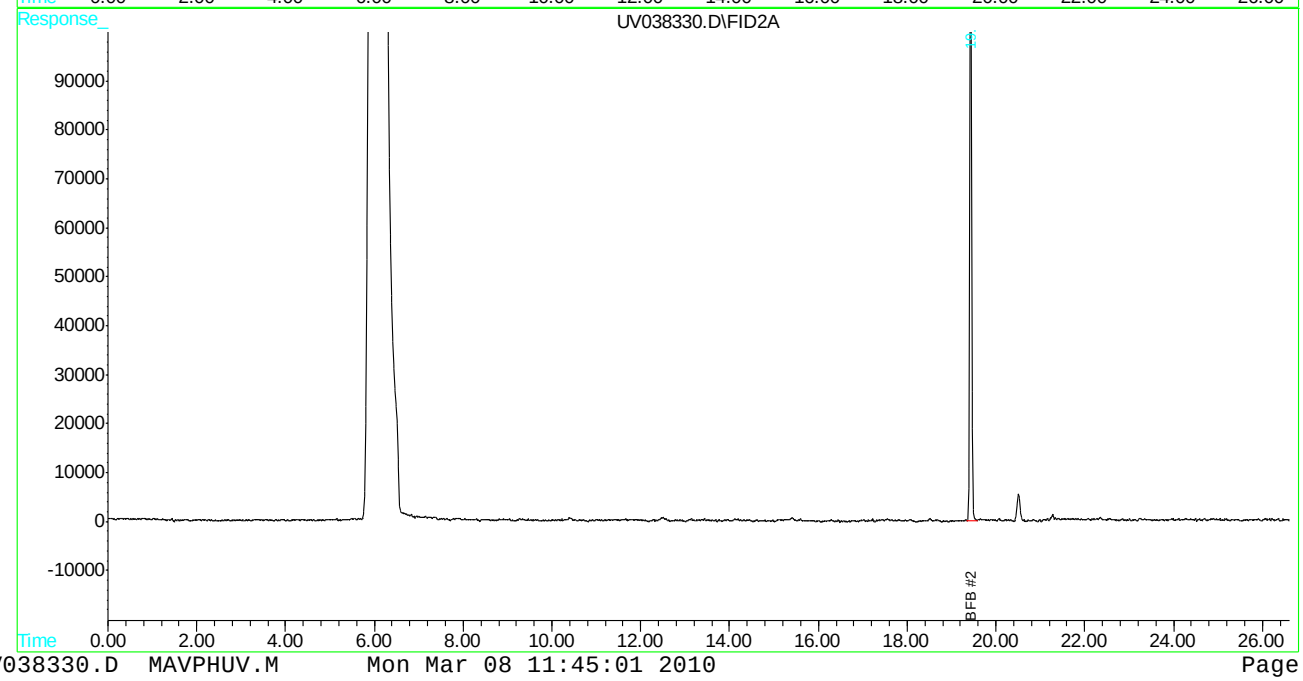
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038330.D\FID1B.CH Vial: 11
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038330.D\FID2A.CH
Acq On : 5 Mar 2010 3:14 pm Operator: ArielH
Sample : f71731-3 Inst : VOA4
Misc : gc10702,guv2201,6.03,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:33 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038333.D\FID1B.CH Vial: 14
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038333.D\FID2A.CH
Acq On : 5 Mar 2010 4:50 pm Operator: ArielH
Sample : f71731-4 Inst : VOA4
Misc : gc10702,guv2201,6.09,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:35 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.44	10729531	174.989	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	87.49%
22) S	BFB #2	19.44	3502413	169.618	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	84.81%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	15.59	1824	0.802	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	18.07	2792	1.091	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	0.00	0	N.D.	ug/L
17)	Toluene #2	15.59	1140	0.801	ug/L
18)	Nonane	17.56	1192	0.866	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	18.07	1986	1.187	ug/L
21)	o-Xylene #2	18.68	871	0.503	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

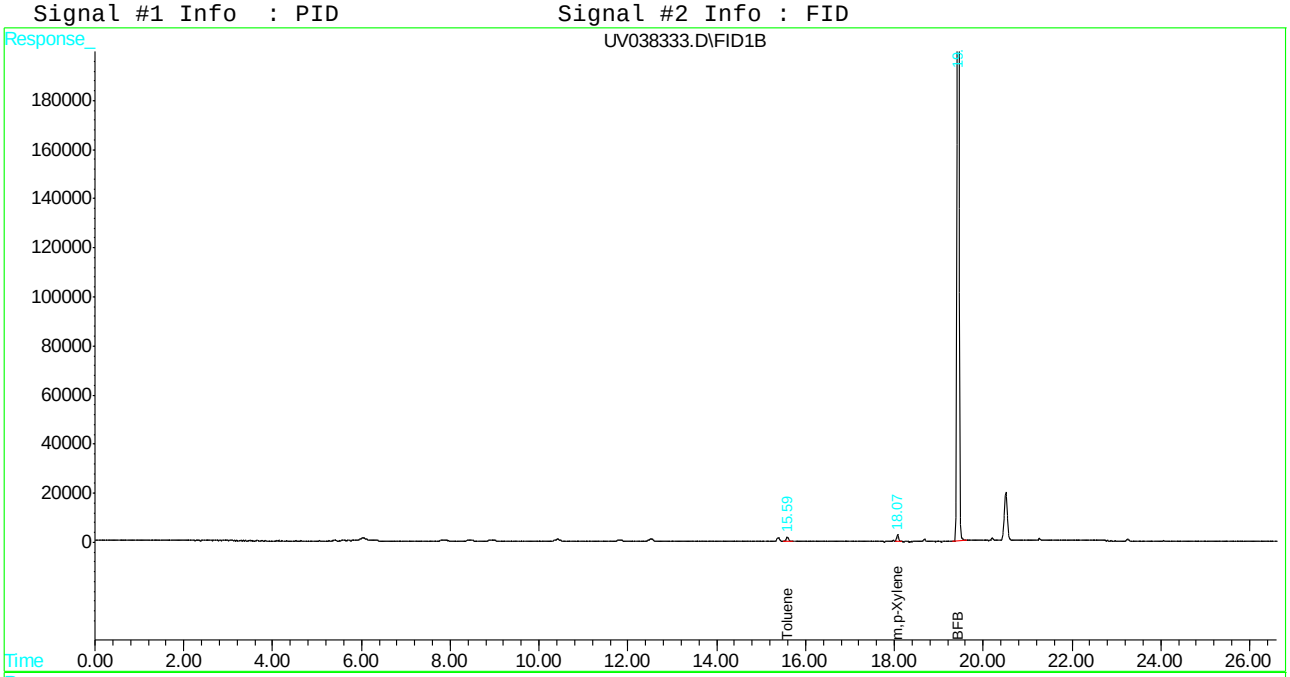
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038333.D MAVPHUV.M Mon Mar 08 11:45:13 2010

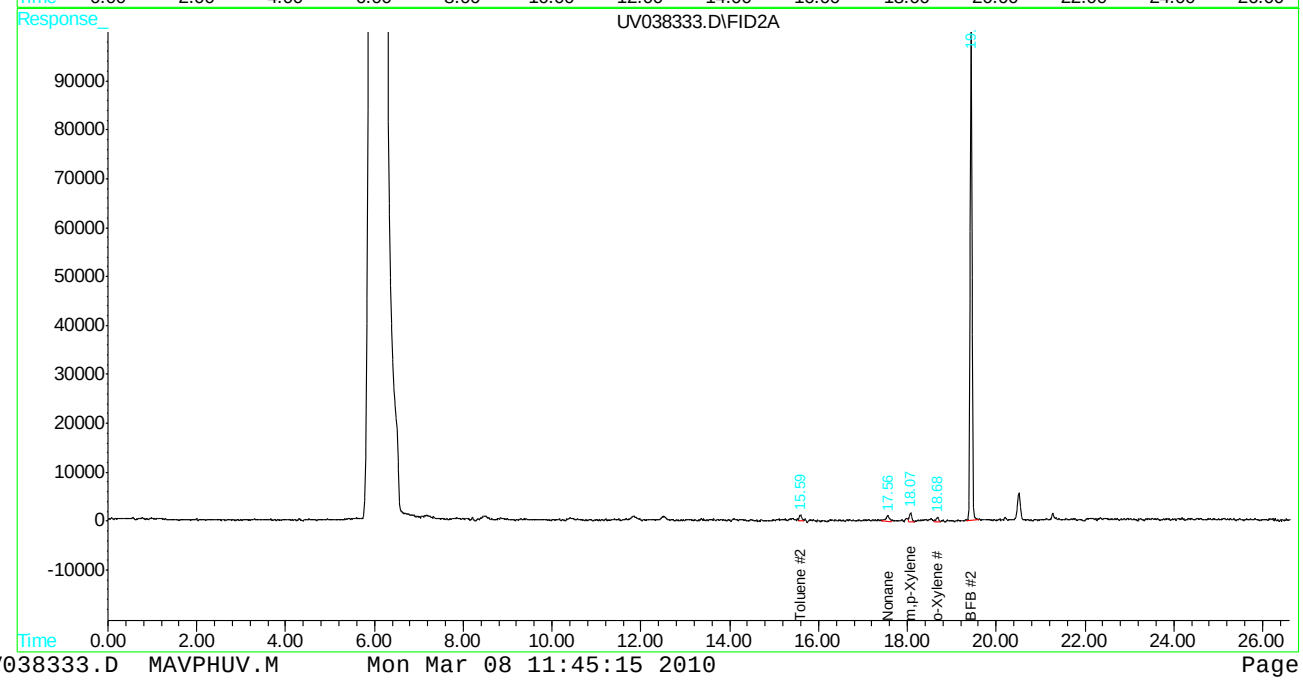
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038333.D\FID1B.CH Vial: 14
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038333.D\FID2A.CH
Acq On : 5 Mar 2010 4:50 pm Operator: ArielH
Sample : f71731-4 Inst : VOA4
Misc : gc10702,guv2201,6.09,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:35 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038334.D\FID1B.CH Vial: 15
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038334.D\FID2A.CH
Acq On : 5 Mar 2010 5:22 pm Operator: ArielH
Sample : f71731-5 Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:35 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
7) S BFB	19.43	12060384	196.694	ug/L
Spiked Amount 200.000 Range 70 - 130		Recovery = 98.35%		
22) S BFB #2	19.43	3984301	192.955	ug/L
Spiked Amount 200.000 Range 70 - 130		Recovery = 96.48%		
Target Compounds				
1) Methyl tert butyl ether	0.00	0	N.D.	ug/L
2) Benzene	0.00	0	N.D.	ug/L
3) Toluene	0.00	0	N.D.	ug/L
4) Ethylbenzene	0.00	0	N.D.	ug/L
5) m,p-Xylene	0.00	0	N.D.	ug/L
6) o-Xylene	0.00	0	N.D.	ug/L
8) 1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9) Naphthalene	0.00	0	N.D.	ug/L
10) H C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12) Pentane	0.00	0	N.D.	ug/L
13) 2-Methylpentane	0.00	0	N.D.	ug/L
14) Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15) 2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16) Benzene #2	0.00	0	N.D.	ug/L
17) Toluene #2	15.58	932	0.654	ug/L
18) Nonane	0.00	0	N.D.	ug/L
19) Ethylbenzene #2	0.00	0	N.D.	ug/L
20) m,p-Xylene #2	18.07	929	0.555	ug/L
21) o-Xylene #2	0.00	0	N.D.	ug/L
23) 1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24) Naphthalene #2	0.00	0	N.D.	ug/L
25) H C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

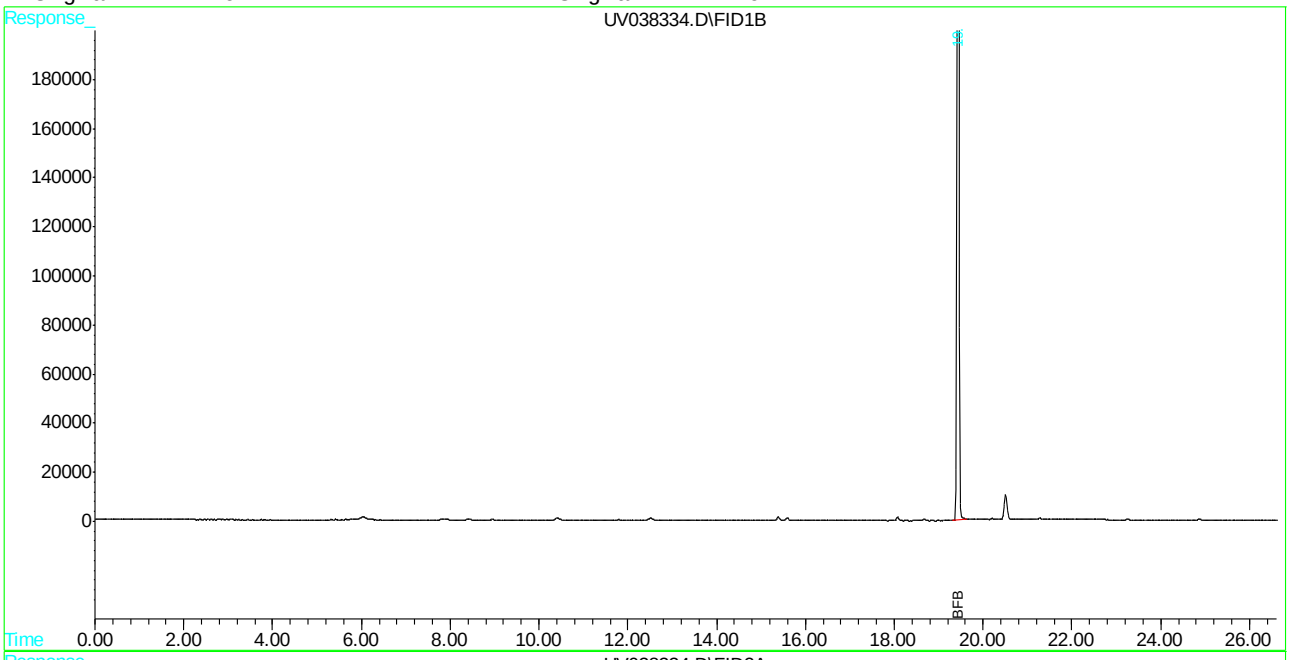
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038334.D MAVPHUV.M Mon Mar 08 11:45:17 2010

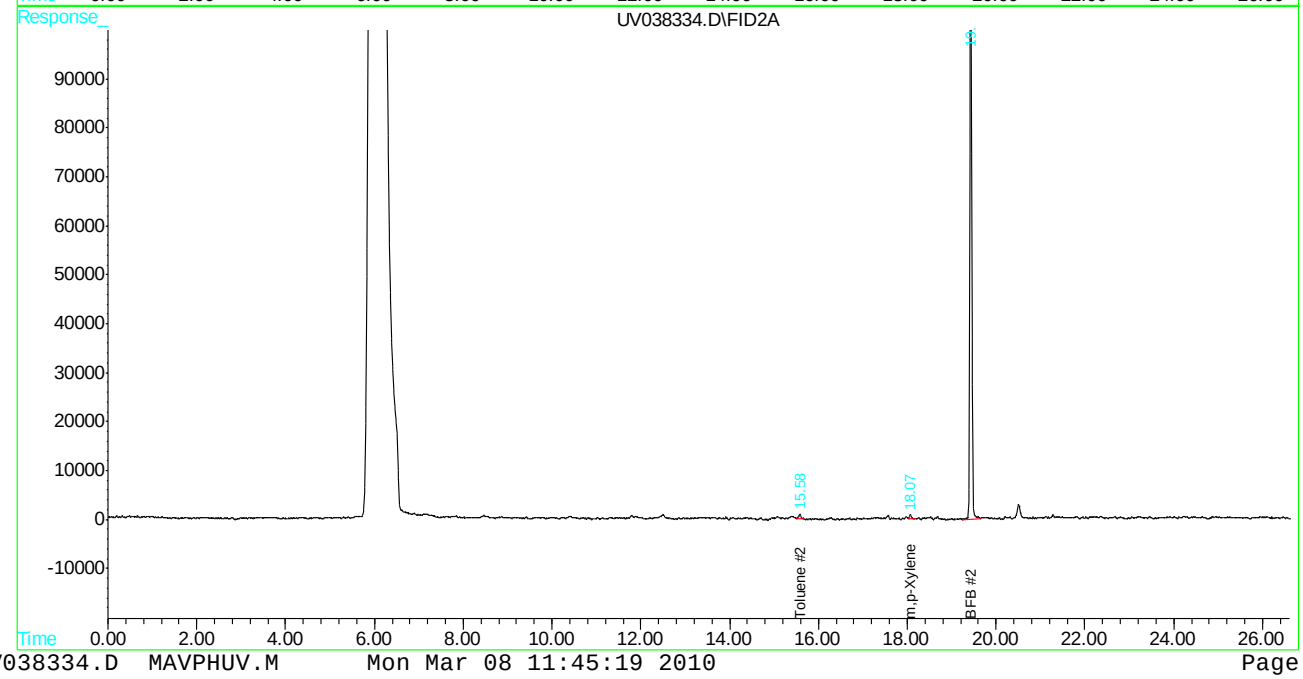
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038334.D\FID1B.CH Vial: 15
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038334.D\FID2A.CH
Acq On : 5 Mar 2010 5:22 pm Operator: ArielH
Sample : f71731-5 Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:35 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Manual Integrations APPROVED (compounds with "m" flag)
Steven Heller
03/08/10 13:39

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038335.D\FID1B.CH Vial: 16
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038335.D\FID2A.CH
Acq On : 5 Mar 2010 5:54 pm Operator: ArielH
Sample : f71731-6 Inst : VOA4
Misc : gc10702,guv2201,5.48,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:36 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
7) S BFB	19.44	10819797	176.461 ug/L
Spiked Amount 200.000 Range 70 - 130		Recovery =	88.23%
22) S BFB #2	19.44	3523913	170.659 ug/L
Spiked Amount 200.000 Range 70 - 130		Recovery =	85.33%
Target Compounds			
1) Methyl tert butyl ether	0.00	0	N.D. ug/L
2) Benzene	0.00	0	N.D. ug/L
3) Toluene	0.00	0	N.D. ug/L
4) Ethylbenzene	0.00	0	N.D. ug/L
5) m,p-Xylene	0.00	0	N.D. ug/L
6) o-Xylene	0.00	0	N.D. ug/L
8) 1,2,4-Trimethylbenzene	0.00	0	N.D. ug/L
9) Naphthalene	0.00	0	N.D. ug/L
10) H C9- C10 Aromatics (unadjus	0.00	0	N.D. ug/L
12) Pentane	0.00	0	N.D. ug/L
13) 2-Methylpentane	0.00	0	N.D. ug/L
14) Methyl tert butyl ether #2	0.00	0	N.D. ug/L
15) 2,2,4-Trimethylpentane	0.00	0	N.D. ug/L
16) Benzene #2	0.00	0	N.D. ug/L
17) Toluene #2	0.00	0	N.D. ug/L
18) Nonane	0.00	0	N.D. ug/L
19) Ethylbenzene #2	0.00	0	N.D. ug/L
20) m,p-Xylene #2	18.08	830	0.496 ug/L m
21) o-Xylene #2	0.00	0	N.D. ug/L
23) 1,2,4-Trimethylbenzene #2	0.00	0	N.D. ug/L
24) Naphthalene #2	0.00	0	N.D. ug/L
25) H C5- C8 Aliphatics (unadjus	0.00	0	N.D. ug/L
26) H C9- C12 Aliphatics (unadju	0.00	0	N.D. ug/L

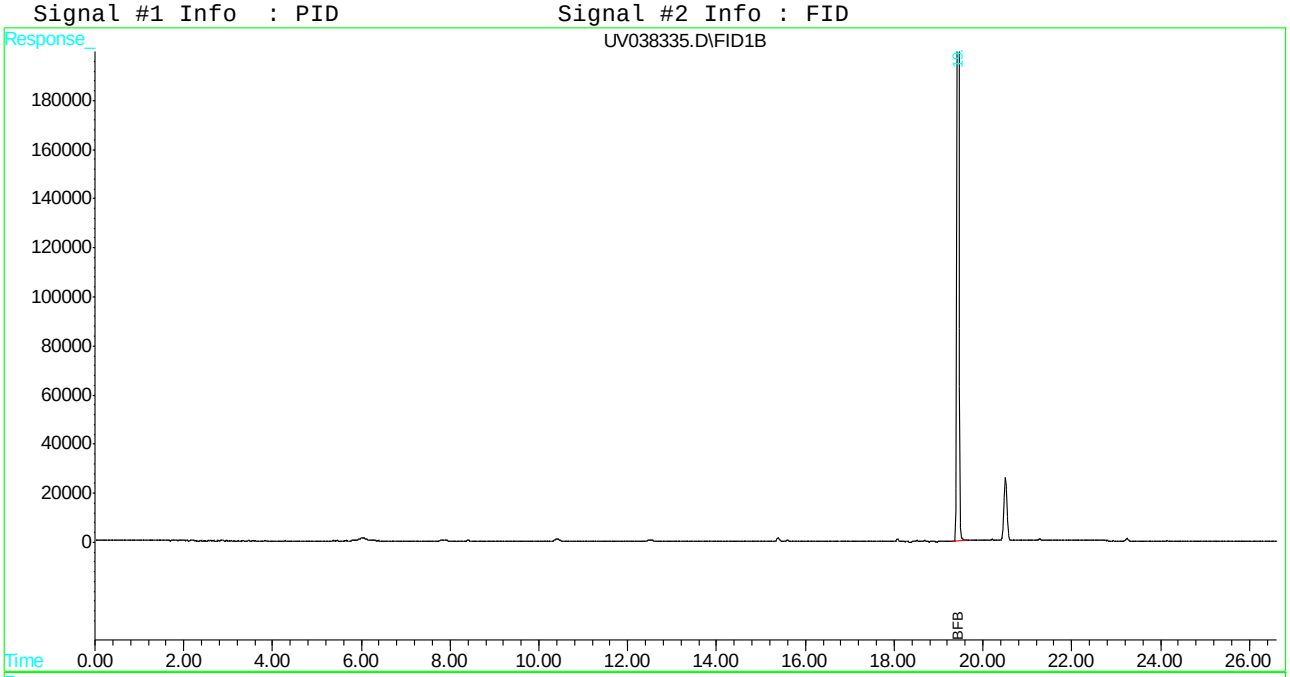
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038335.D MAVPHUV.M Mon Mar 08 11:45:21 2010

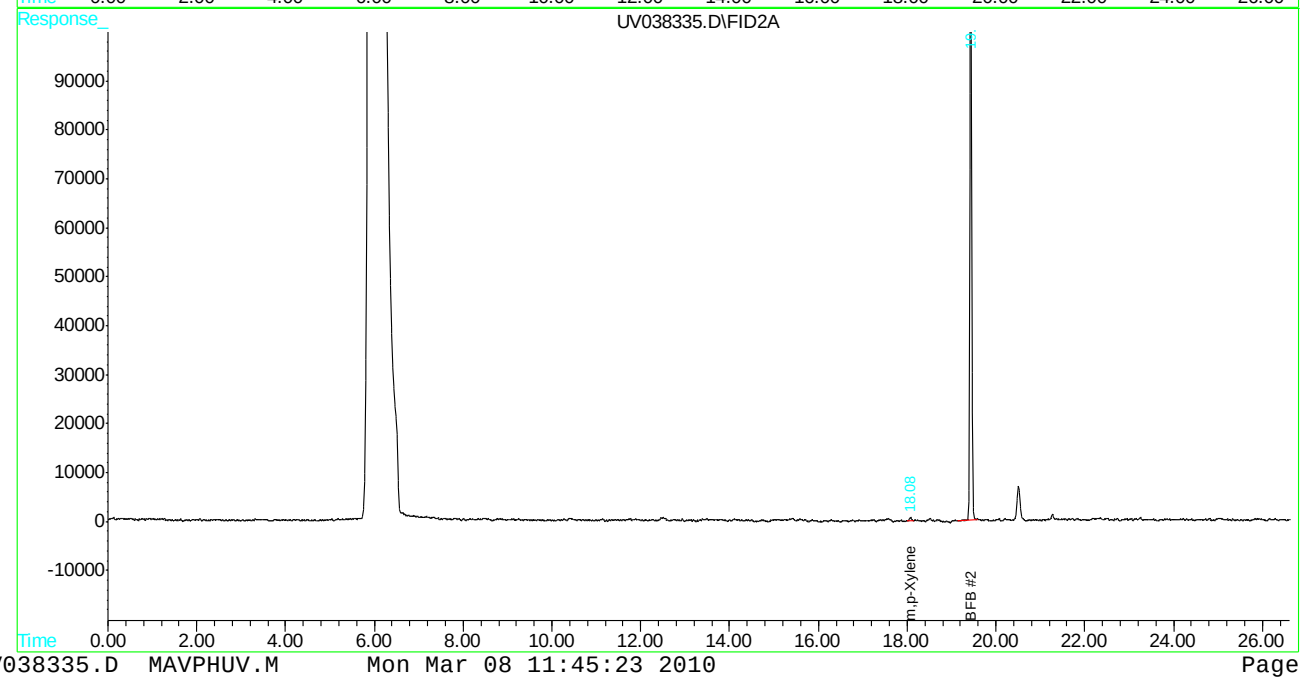
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038335.D\FID1B.CH Vial: 16
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038335.D\FID2A.CH
Acq On : 5 Mar 2010 5:54 pm Operator: ArielH
Sample : f71731-6 Inst : VOA4
Misc : gc10702,guv2201,5.48,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:36 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038336.D\FID1B.CH Vial: 17
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038336.D\FID2A.CH
Acq On : 5 Mar 2010 6:26 pm Operator: ArielH
Sample : f71731-7 Inst : VOA4
Misc : gc10702,guv2201,6.04,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:36 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	11796179	192.385	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 96.19%
22) S	BFB #2	19.43	3851226	186.510	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 93.25%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	0.00	0	N.D.	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	12.50	764	0.662	ug/L
17)	Toluene #2	0.00	0	N.D.	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	0.00	0	N.D.	ug/L
21)	o-Xylene #2	0.00	0	N.D.	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

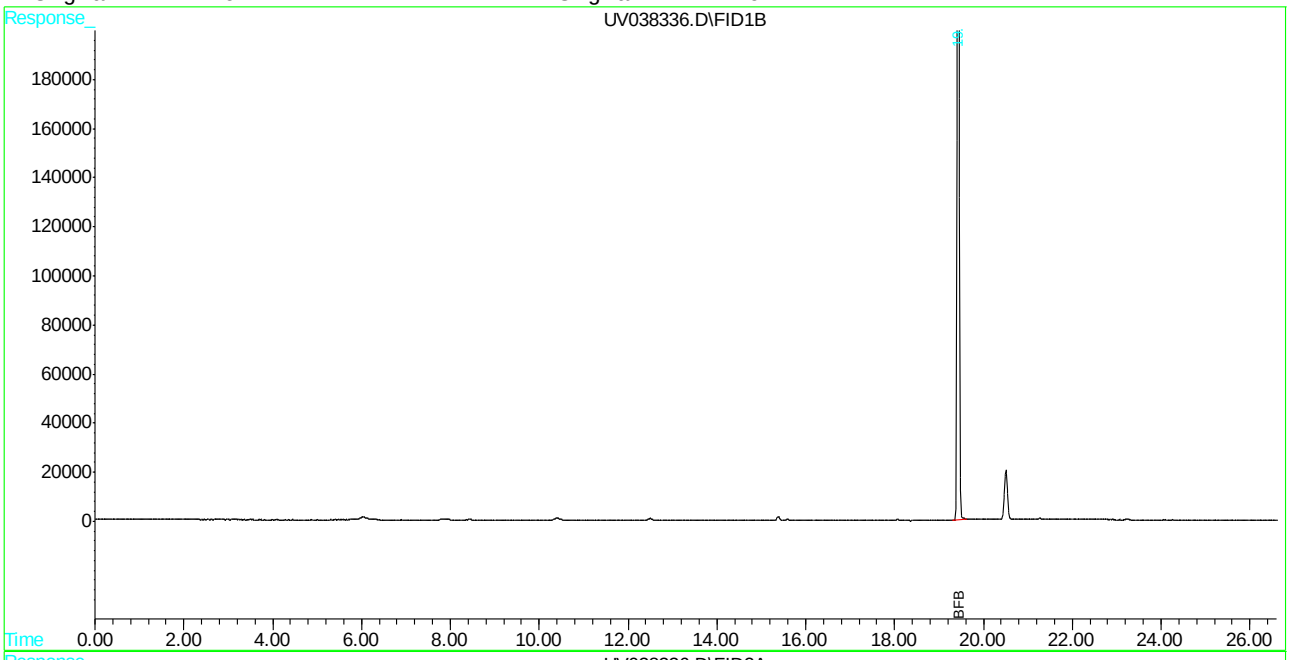
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038336.D MAVPHUV.M Mon Mar 08 11:45:25 2010

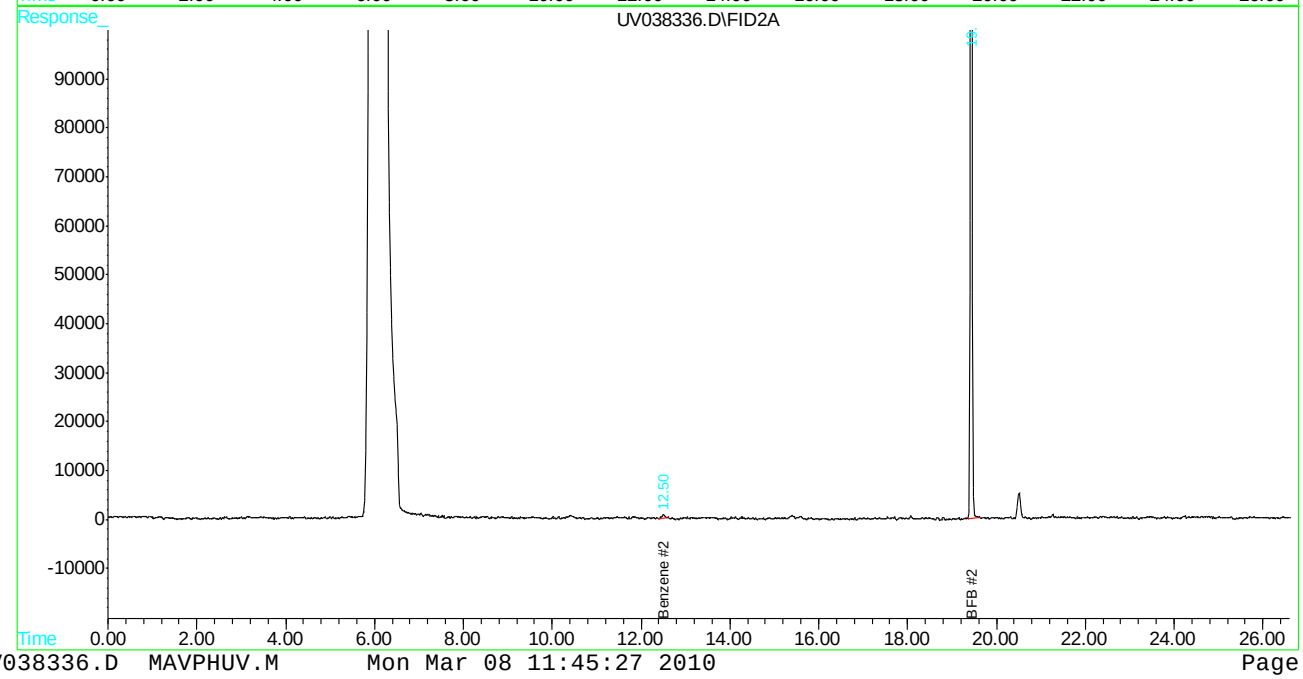
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038336.D\FID1B.CH Vial: 17
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038336.D\FID2A.CH
Acq On : 5 Mar 2010 6:26 pm Operator: ArielH
Sample : f71731-7 Inst : VOA4
Misc : gc10702,guv2201,6.04,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:36 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038337.D\FID1B.CH Vial: 18
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038337.D\FID2A.CH
Acq On : 5 Mar 2010 6:58 pm Operator: ArielH
Sample : f71731-8 Inst : VOA4
Misc : gc10702,guv2201,5.66,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:37 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	10998361	179.373	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	89.69%
22) S	BFB #2	19.43	3600282	174.357	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	87.18%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	0.00	0	N.D.	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	0.00	0	N.D.	ug/L
17)	Toluene #2	0.00	0	N.D.	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	0.00	0	N.D.	ug/L
21)	o-Xylene #2	0.00	0	N.D.	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

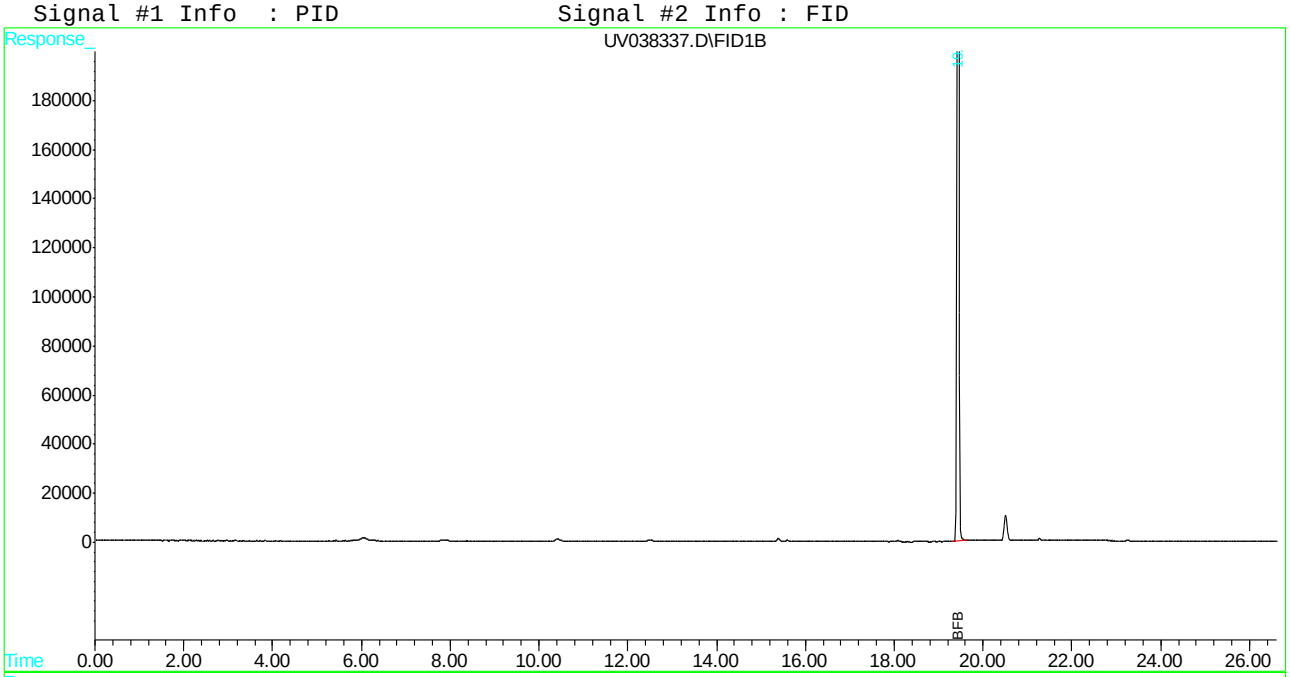
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038337.D MAVPHUV.M Mon Mar 08 11:45:30 2010

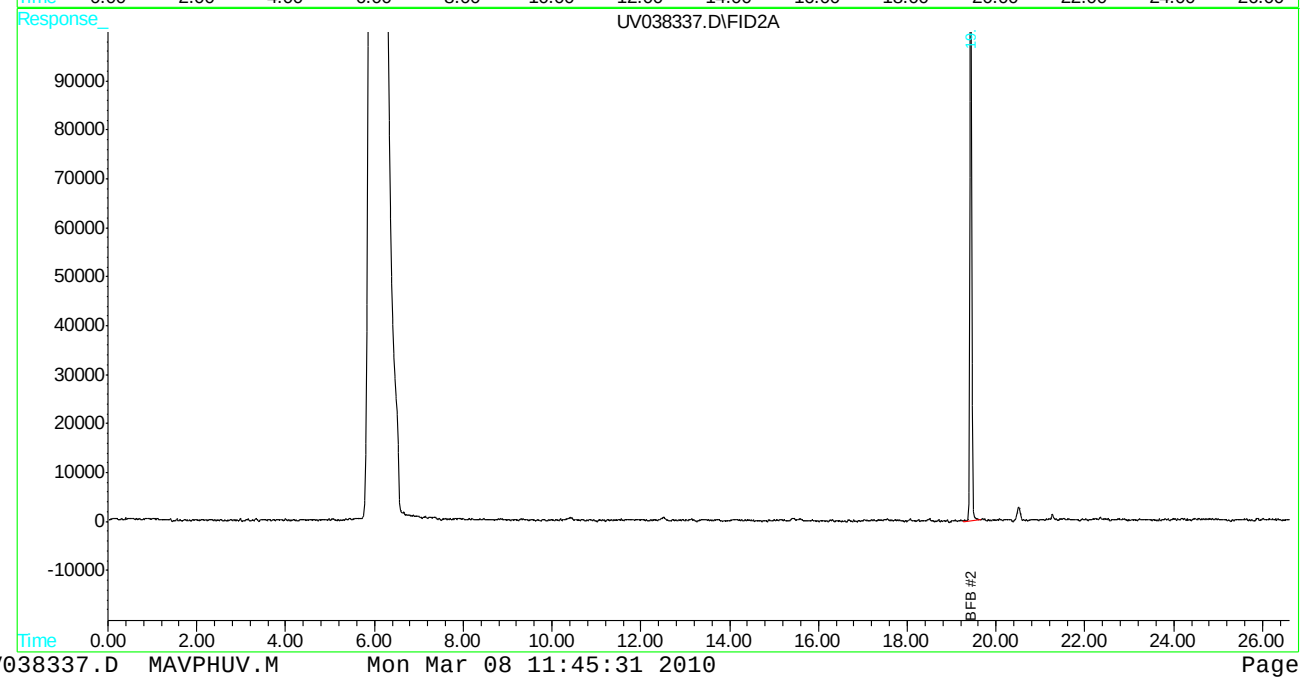
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038337.D\FID1B.CH Vial: 18
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038337.D\FID2A.CH
Acq On : 5 Mar 2010 6:58 pm Operator: ArielH
Sample : f71731-8 Inst : VOA4
Misc : gc10702,guv2201,5.66,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:37 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038338.D\FID1B.CH Vial: 19
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038338.D\FID2A.CH
Acq On : 5 Mar 2010 7:30 pm Operator: ArielH
Sample : f71731-9 Inst : VOA4
Misc : gc10702,guv2201,5.52,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:37 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	11055277	180.301	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	90.15%
22) S	BFB #2	19.43	3585539	173.643	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	86.82%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	0.00	0	N.D.	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	0.00	0	N.D.	ug/L
17)	Toluene #2	0.00	0	N.D.	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	0.00	0	N.D.	ug/L
21)	o-Xylene #2	0.00	0	N.D.	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

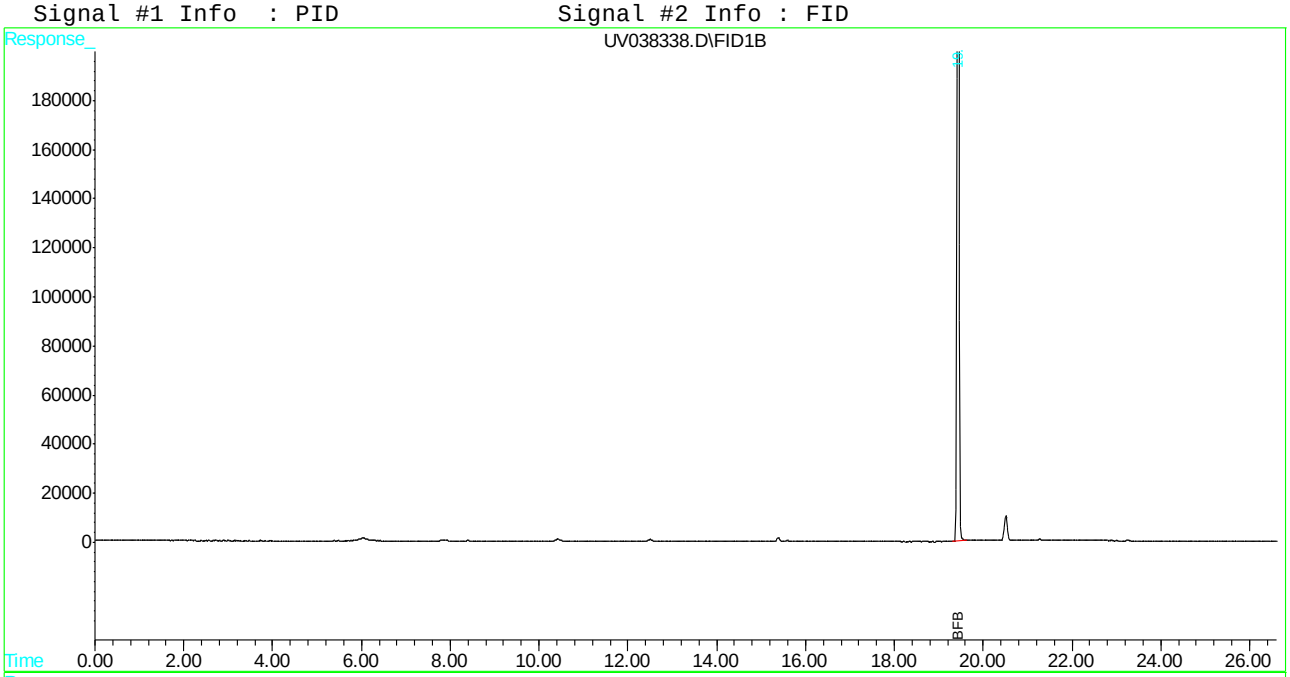
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038338.D MAVPHUV.M Mon Mar 08 11:45:34 2010

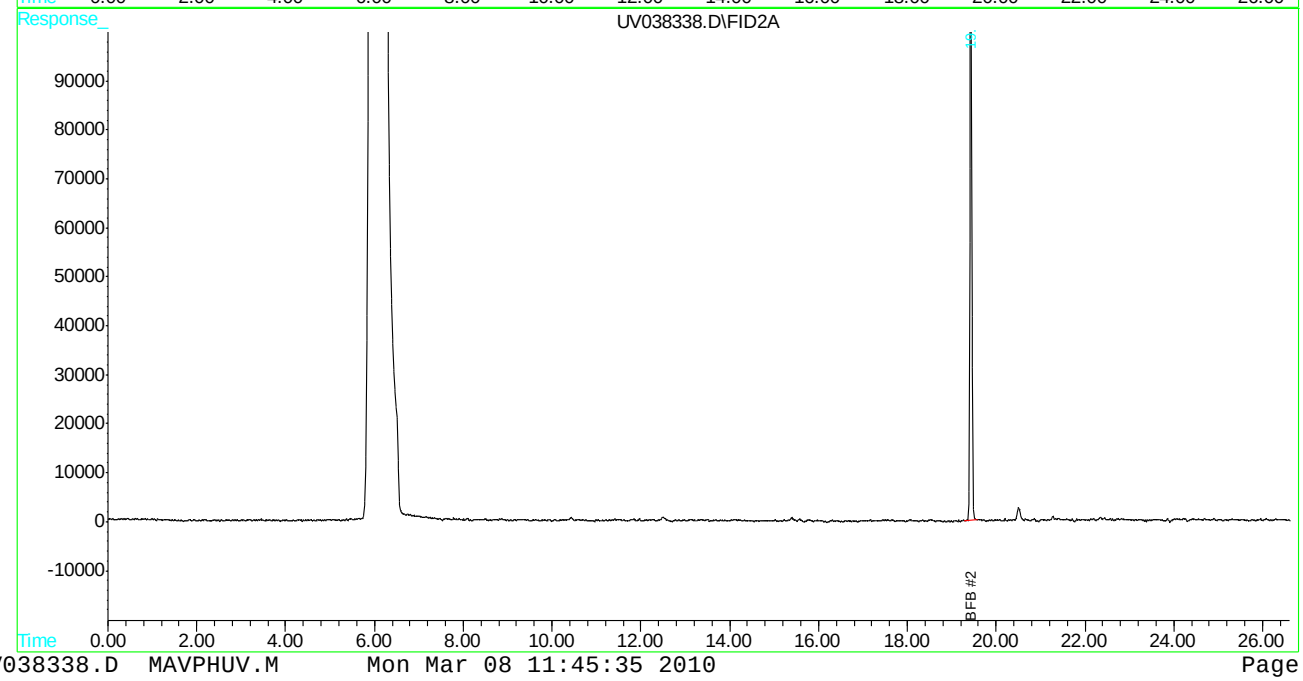
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038338.D\FID1B.CH Vial: 19
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038338.D\FID2A.CH
Acq On : 5 Mar 2010 7:30 pm Operator: ArielH
Sample : f71731-9 Inst : VOA4
Misc : gc10702,guv2201,5.52,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:37 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038339.D\FID1B.CH Vial: 20
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038339.D\FID2A.CH
Acq On : 5 Mar 2010 8:02 pm Operator: ArielH
Sample : f71731-10 Inst : VOA4
Misc : gc10702,guv2201,5.18,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:37 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.44	10901142	177.788	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	88.89%
22) S	BFB #2	19.44	3562511	172.528	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	86.26%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	0.00	0	N.D.	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	0.00	0	N.D.	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	12.49	829	0.718	ug/L
17)	Toluene #2	0.00	0	N.D.	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	0.00	0	N.D.	ug/L
21)	o-Xylene #2	0.00	0	N.D.	ug/L
23)	1,2,4-Trimethylbenzene #2	0.00	0	N.D.	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

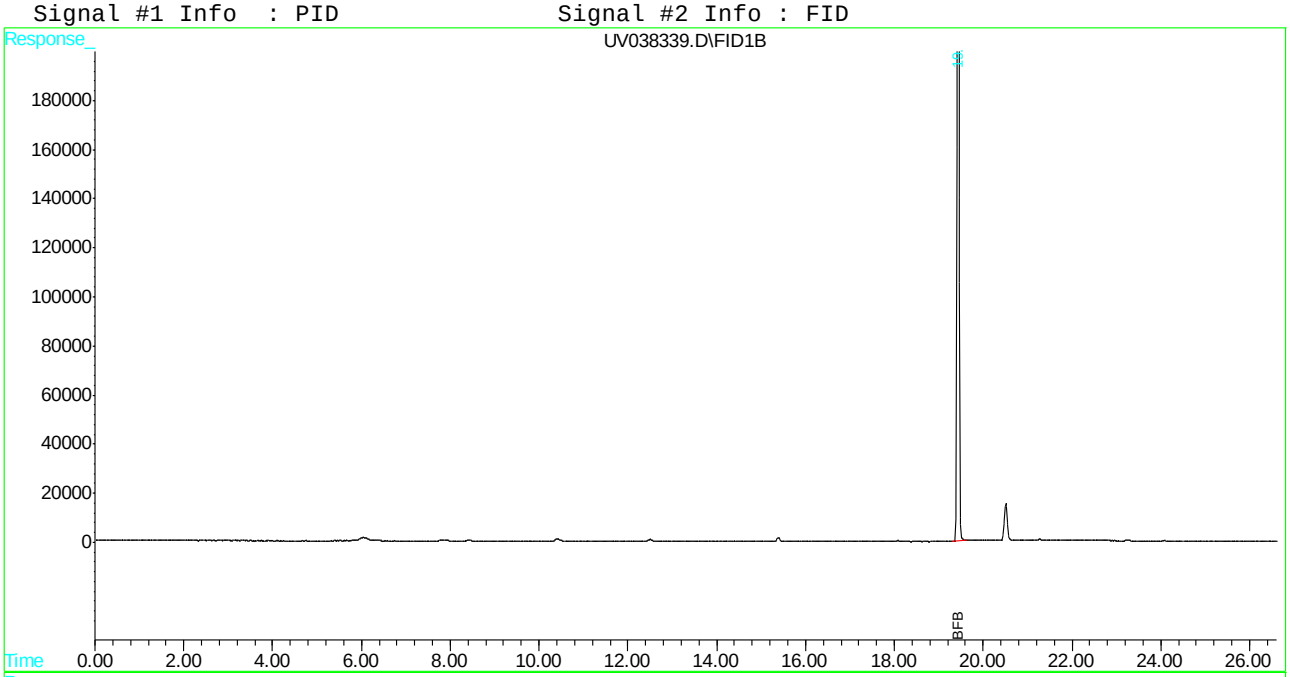
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038339.D MAVPHUV.M Mon Mar 08 11:45:38 2010

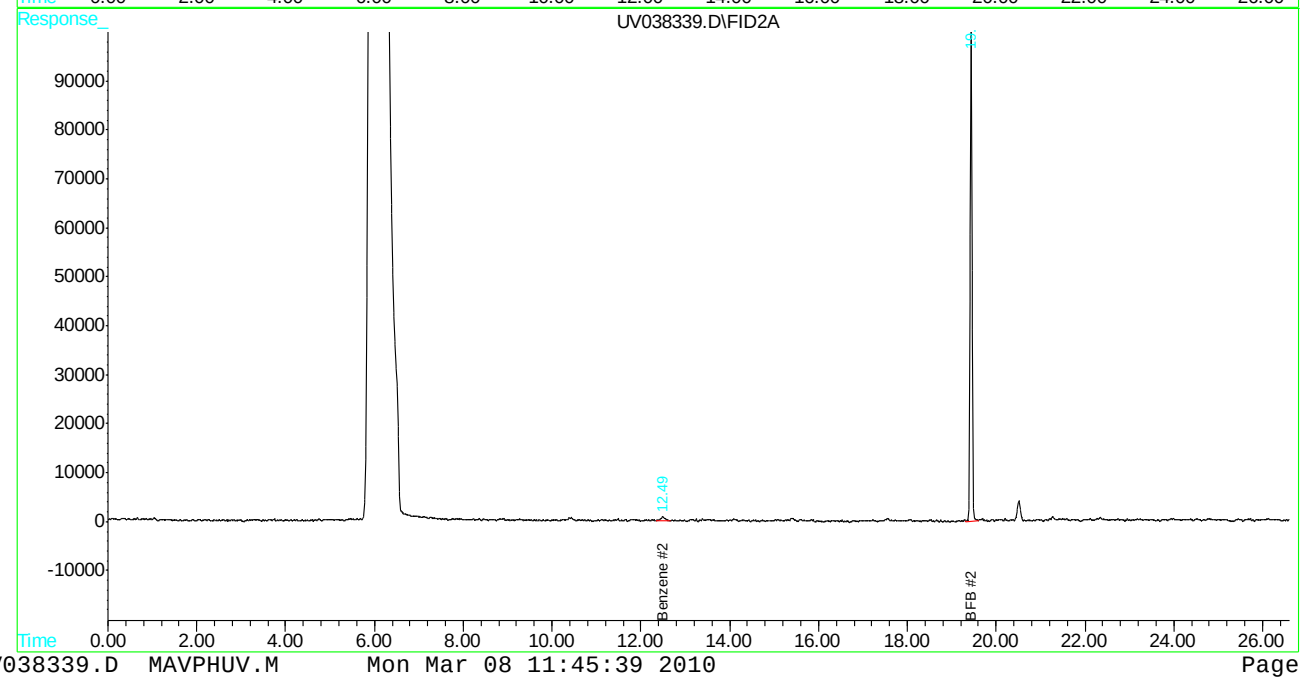
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038339.D\FID1B.CH Vial: 20
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038339.D\FID2A.CH
Acq On : 5 Mar 2010 8:02 pm Operator: ArielH
Sample : f71731-10 Inst : VOA4
Misc : gc10702,guv2201,5.18,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:37 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038322.D\FID1B.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038322.D\FID2A.CH
Acq On : 5 Mar 2010 10:19 am Operator: ArielH
Sample : mb Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:30 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.44	12146454	198.098	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 99.05%
22) S	BFB #2	19.44	3951369	191.360	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 95.68%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	12.53	2819	1.360	ug/L
3)	Toluene	15.59	4990	2.194	ug/L
4)	Ethylbenzene	17.98	2984	1.219	ug/L
5)	m,p-Xylene	18.07	9227	3.604	ug/L
6)	o-Xylene	18.68	3704	1.494	ug/L
8)	1,2,4-Trimethylbenzene	20.20	3430	1.309	ug/L
9)	Naphthalene	23.25	4109	12.650	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	7.15	1275	2.438	ug/L
13)	2-Methylpentane	8.48	1912	3.494	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	11.84	2322	4.247	ug/L
16)	Benzene #2	12.53	1750	1.517	ug/L
17)	Toluene #2	15.59	3148	2.211	ug/L
18)	Nonane	17.56	3203	2.326	ug/L
19)	Ethylbenzene #2	17.98	2224	1.315	ug/L
20)	m,p-Xylene #2	18.08	5499	3.288	ug/L
21)	o-Xylene #2	18.68	2626	1.515	ug/L
23)	1,2,4-Trimethylbenzene #2	20.21	2277	1.333	ug/L
24)	Naphthalene #2	23.25	2289	6.173	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

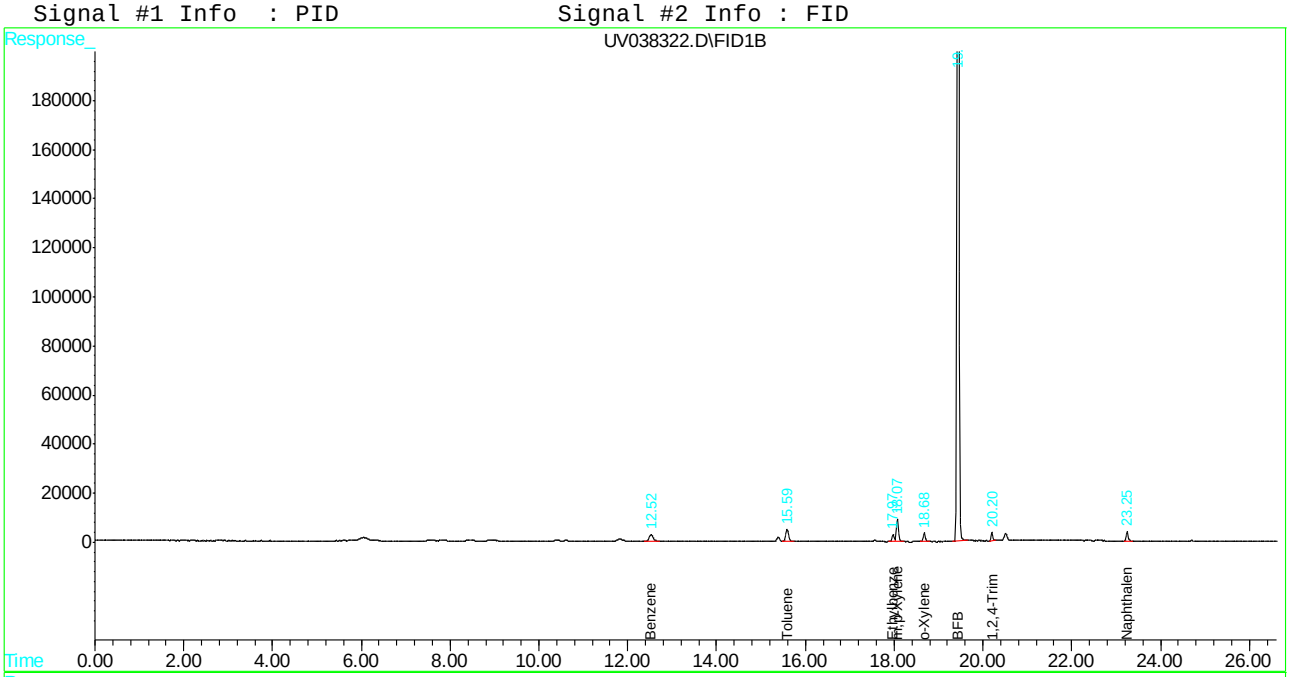
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038322.D MAVPHUV.M Mon Mar 08 11:44:32 2010

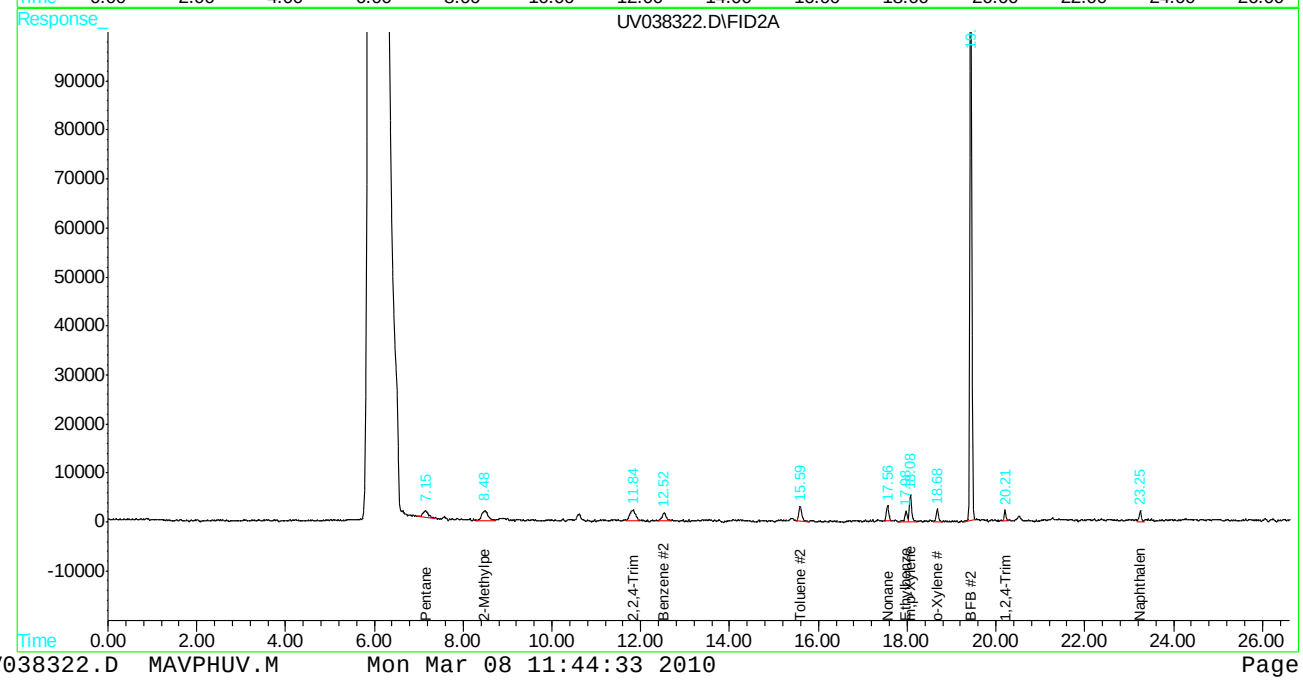
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038322.D\FID1B.CH Vial: 3
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038322.D\FID2A.CH
Acq On : 5 Mar 2010 10:19 am Operator: ArielH
Sample : mb Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:30 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038321.D\FID1B.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038321.D\FID2A.CH
Acq On : 5 Mar 2010 9:47 am Operator: ArielH
Sample : bs Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 5 10:27 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	13731116	223.942	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 111.97%
22) S	BFB #2	19.43	4548742	220.290	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 110.15%
	Target Compounds				
1)	Methyl tert butyl ether	8.97	36569	92.713	ug/L
2)	Benzene	12.53	159619	77.007	ug/L
3)	Toluene	15.59	218174	95.929	ug/L
4)	Ethylbenzene	17.97	197706	80.785	ug/L
5)	m,p-Xylene	18.07	500221	195.399	ug/L
6)	o-Xylene	18.68	220314	88.840	ug/L
8)	1,2,4-Trimethylbenzene	20.20	234243	89.380	ug/L
9)	Naphthalene	23.24	84681	93.992	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	7013183	89.475	ug/L
12)	Pentane	7.21	33384	63.851	ug/L
13)	2-Methylpentane	8.52	45180	82.536	ug/L
14)	Methyl tert butyl ether #2	8.97	23702	87.181	ug/L
15)	2,2,4-Trimethylpentane	11.85	50796	92.891	ug/L
16)	Benzene #2	12.53	92933	80.553	ug/L
17)	Toluene #2	15.59	136920	96.164	ug/L
18)	Nonane	17.56	126791	92.099	ug/L
19)	Ethylbenzene #2	17.97	138812	82.072	ug/L
20)	m,p-Xylene #2	18.07	298362	178.403	ug/L
21)	o-Xylene #2	18.68	155638	89.803	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	153631	89.935	ug/L
24)	Naphthalene #2	23.24	40959	110.480	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	21561564	555.178	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	29748296	528.732	ug/L

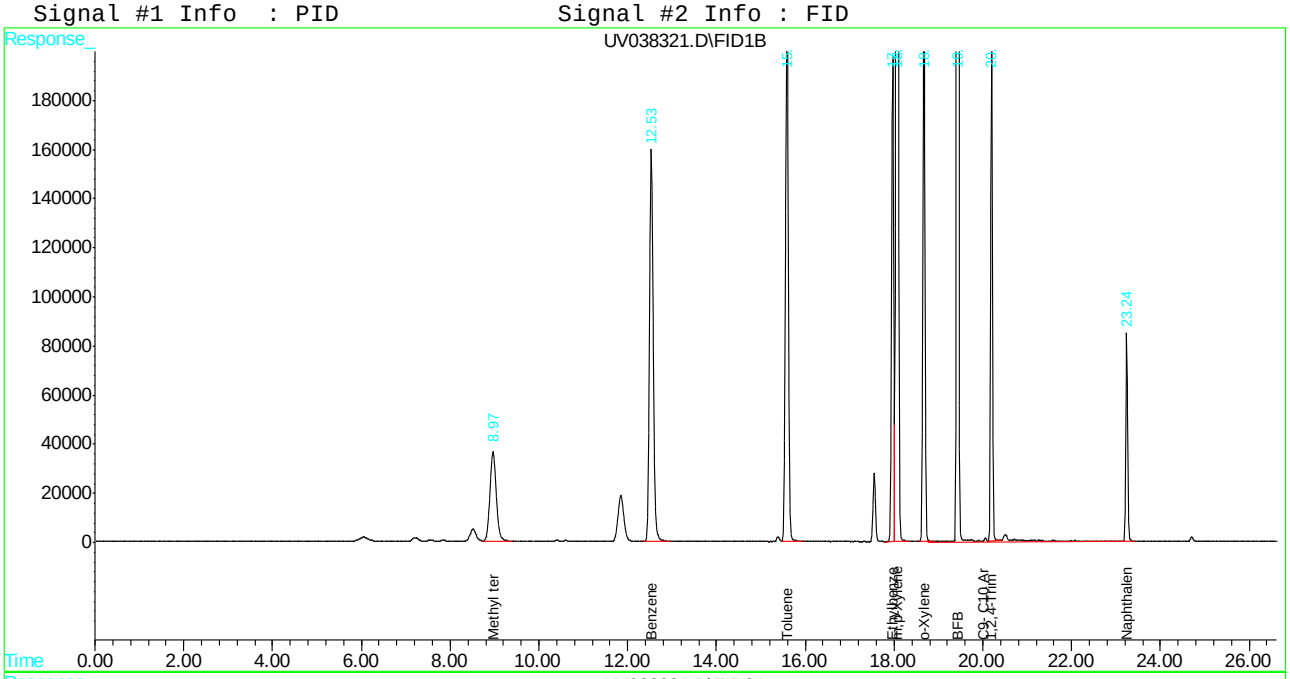
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038321.D MAVPHUV.M Mon Mar 08 11:44:27 2010

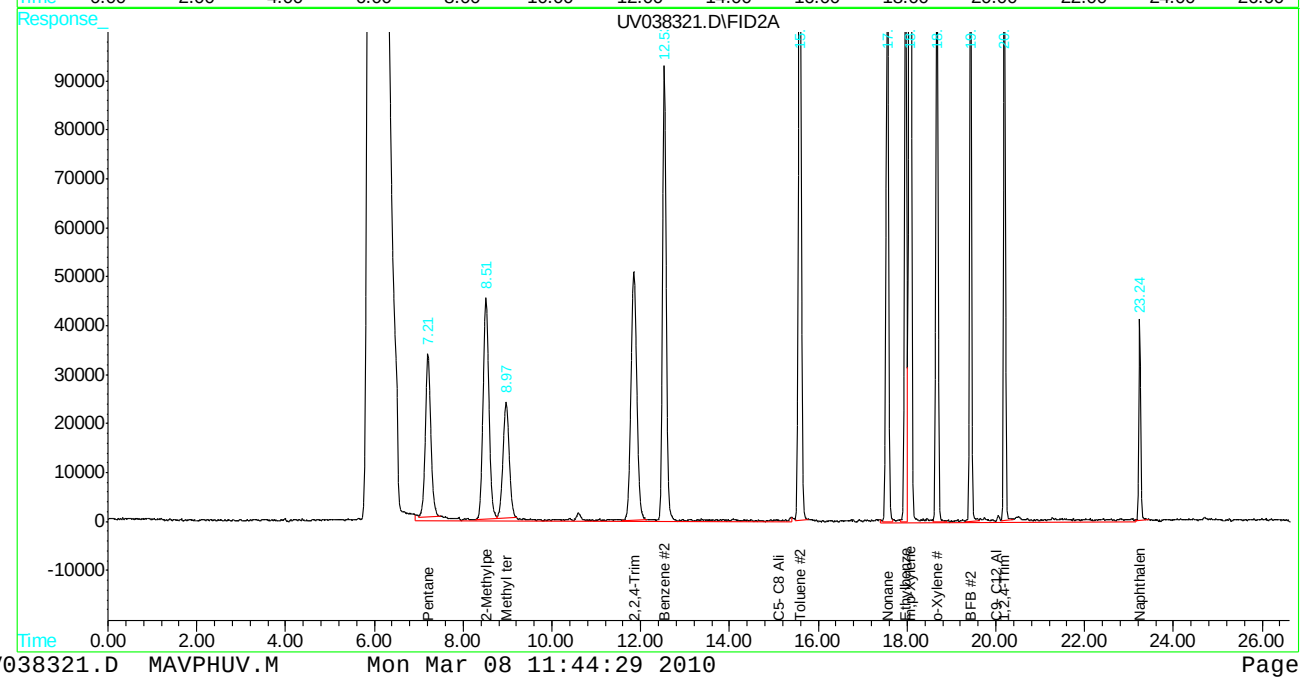
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038321.D\FID1B.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038321.D\FID2A.CH
Acq On : 5 Mar 2010 9:47 am Operator: ArielH
Sample : bs Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 5 10:27 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038347.D\FID1B.CH Vial: 28
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038347.D\FID2A.CH
Acq On : 6 Mar 2010 12:18 am Operator: ArielH
Sample : f71731-5ms Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	11662785	190.209	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 95.10%
22) S	BFB #2	19.43	3752240	181.717	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 90.86%
	Target Compounds				
1)	Methyl tert butyl ether	8.97	31154	78.984	ug/L
2)	Benzene	12.54	133518	64.415	ug/L
3)	Toluene	15.59	155528	68.384	ug/L
4)	Ethylbenzene	17.97	157925	64.530	ug/L
5)	m,p-Xylene	18.07	377802	147.579	ug/L
6)	o-Xylene	18.68	170818	68.881	ug/L
8)	1,2,4-Trimethylbenzene	20.20	171903	65.593	ug/L
9)	Naphthalene	23.24	73214	81.856	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	6256491	77.903	ug/L
12)	Pentane	7.22	20863	39.903	ug/L
13)	2-Methylpentane	8.52	27554	50.337	ug/L
14)	Methyl tert butyl ether #2	8.97	20837	76.644	ug/L
15)	2,2,4-Trimethylpentane	11.85	33238	60.782	ug/L
16)	Benzene #2	12.54	79072	68.539	ug/L
17)	Toluene #2	15.59	99011	69.539	ug/L
18)	Nonane	17.56	89898	65.300	ug/L
19)	Ethylbenzene #2	17.97	112622	66.587	ug/L
20)	m,p-Xylene #2	18.07	224802	134.419	ug/L
21)	o-Xylene #2	18.68	121172	69.916	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	112950	66.120	ug/L
24)	Naphthalene #2	23.24	35393	95.465	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	16537657	400.308	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	23391066	404.298	ug/L

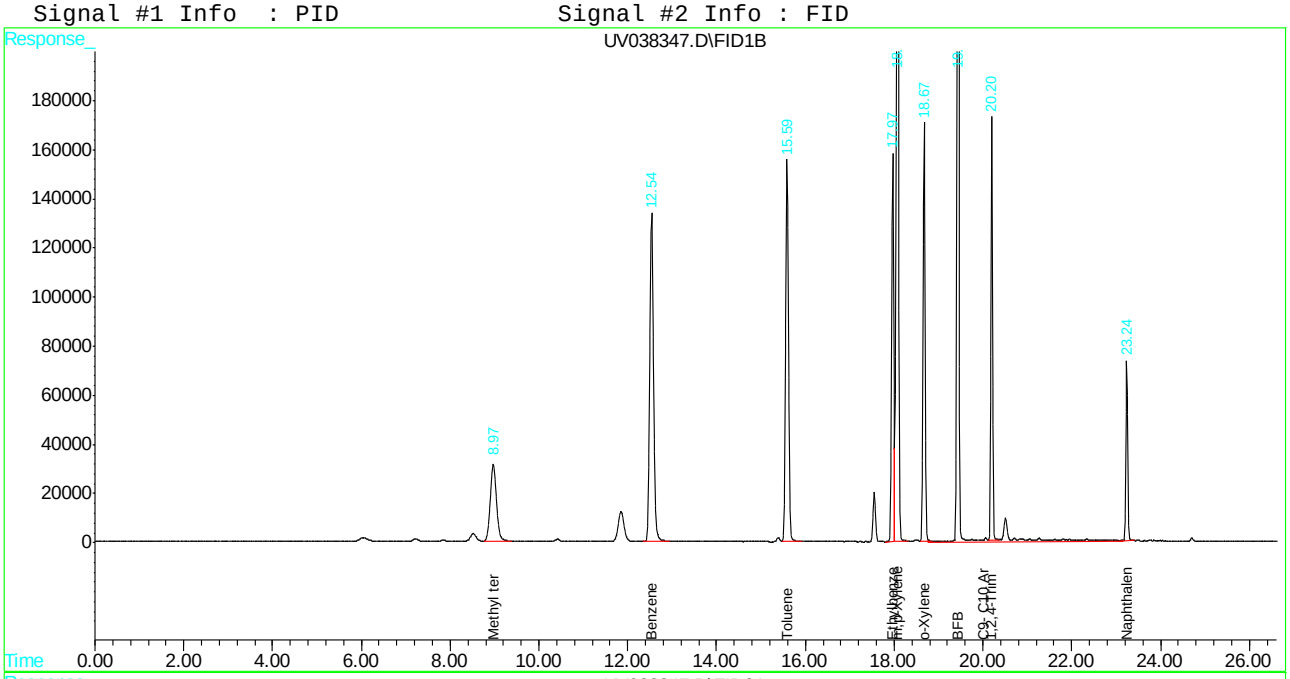
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038347.D MAVPHUV.M Mon Mar 08 11:46:12 2010

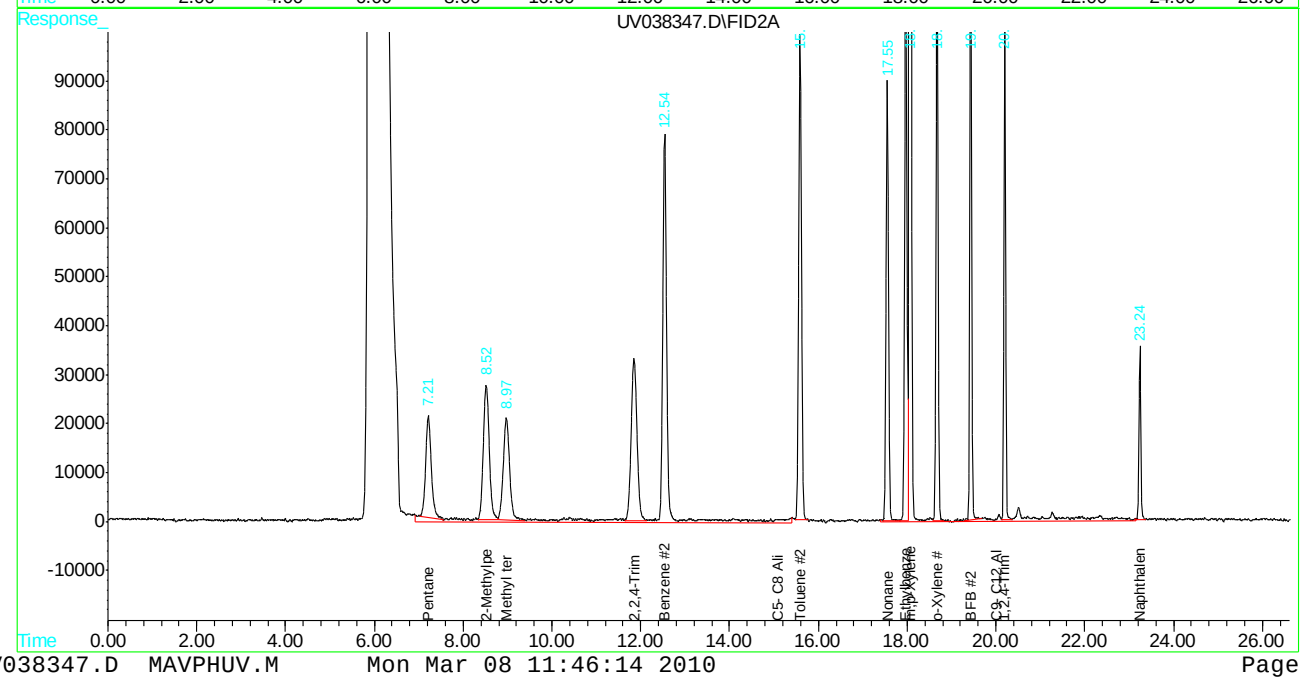
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038347.D\FID1B.CH Vial: 28
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038347.D\FID2A.CH
Acq On : 6 Mar 2010 12:18 am Operator: ArielH
Sample : f71731-5ms Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038348.D\FID1B.CH Vial: 29
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038348.D\FID2A.CH
Acq On : 6 Mar 2010 12:49 am Operator: ArielH
Sample : f71731-5msd Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.44	12309798	200.762	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 100.38%
22) S	BFB #2	19.44	3994149	193.432	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 96.72%
	Target Compounds				
1)	Methyl tert butyl ether	8.97	32233	81.719	ug/L
2)	Benzene	12.54	138038	66.596	ug/L
3)	Toluene	15.59	161216	70.885	ug/L
4)	Ethylbenzene	17.97	163027	66.615	ug/L
5)	m,p-Xylene	18.07	391631	152.980	ug/L
6)	o-Xylene	18.68	176897	71.333	ug/L
8)	1,2,4-Trimethylbenzene	20.20	180142	68.736	ug/L
9)	Naphthalene	23.25	72846	81.470	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	6156067	76.367	ug/L
12)	Pentane	7.22	21328	40.792	ug/L
13)	2-Methylpentane	8.52	28880	52.759	ug/L
14)	Methyl tert butyl ether #2	8.97	21596	79.434	ug/L
15)	2,2,4-Trimethylpentane	11.85	34395	62.899	ug/L
16)	Benzene #2	12.54	82027	71.099	ug/L
17)	Toluene #2	15.59	103009	72.347	ug/L
18)	Nonane	17.56	91651	66.574	ug/L
19)	Ethylbenzene #2	17.97	117055	69.208	ug/L
20)	m,p-Xylene #2	18.07	233767	139.779	ug/L
21)	o-Xylene #2	18.68	125705	72.532	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	118434	69.330	ug/L
24)	Naphthalene #2	23.25	35229	95.024	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	16750512	406.869	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	23833770	412.963	ug/L

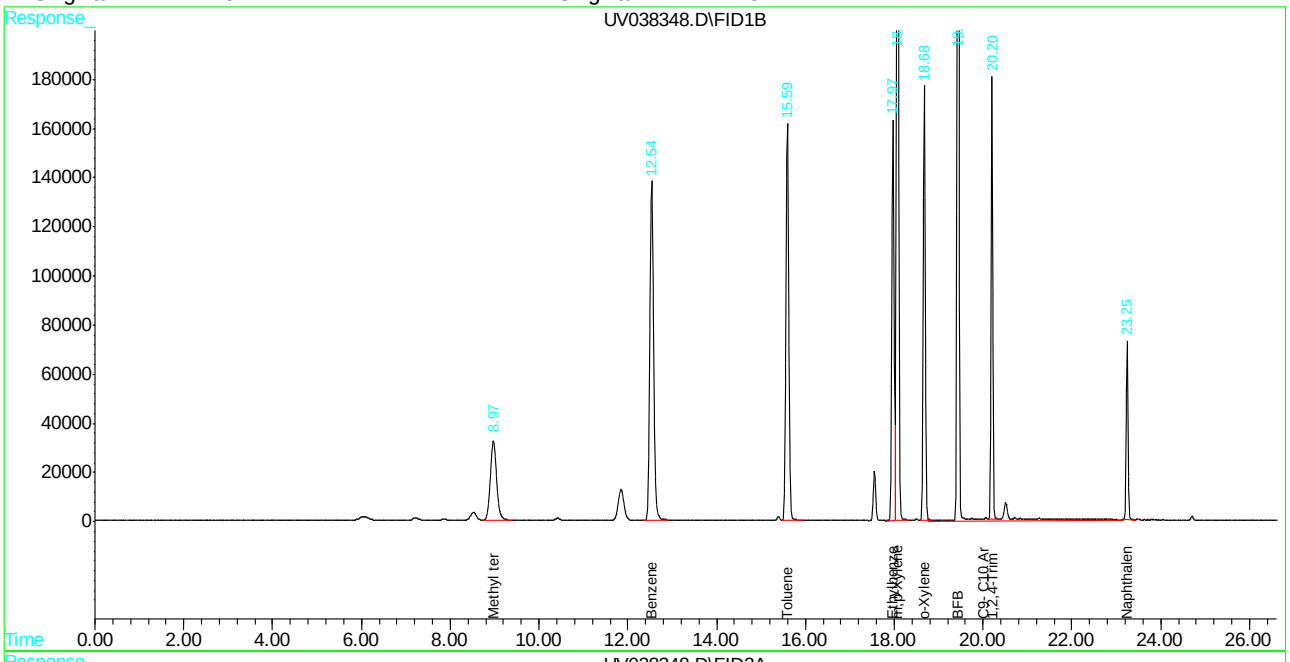
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038348.D MAVPHUV.M Mon Mar 08 11:46:16 2010

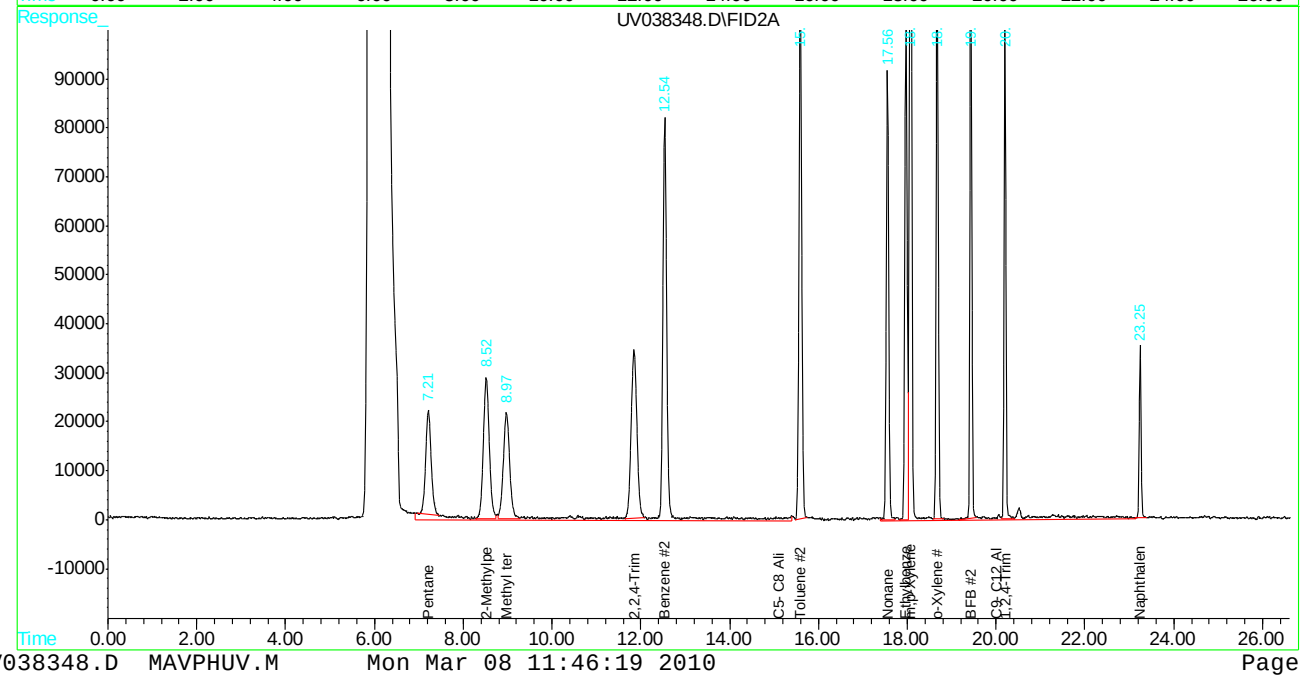
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038348.D\FID1B.CH Vial: 29
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038348.D\FID2A.CH
Acq On : 6 Mar 2010 12:49 am Operator: ArielH
Sample : f71731-5msd Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038346.D\FID1B.CH Vial: 27
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038346.D\FID2A.CH
Acq On : 5 Mar 2010 11:46 pm Operator: ArielH
Sample : f71731-5dup Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:43 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	11090835	180.881	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 90.44%
22) S	BFB #2	19.44	3630181	175.805	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 87.90%
	Target Compounds				
1)	Methyl tert butyl ether	0.00	0	N.D.	ug/L
2)	Benzene	0.00	0	N.D.	ug/L
3)	Toluene	0.00	0	N.D.	ug/L
4)	Ethylbenzene	0.00	0	N.D.	ug/L
5)	m,p-Xylene	18.07	2101	0.821	ug/L
6)	o-Xylene	0.00	0	N.D.	ug/L
8)	1,2,4-Trimethylbenzene	0.00	0	N.D.	ug/L
9)	Naphthalene	0.00	0	N.D.	ug/L
10) H	C9- C10 Aromatics (unadjus	0.00	0	N.D.	ug/L
12)	Pentane	0.00	0	N.D.	ug/L
13)	2-Methylpentane	8.45	621	1.134	ug/L
14)	Methyl tert butyl ether #2	0.00	0	N.D.	ug/L
15)	2,2,4-Trimethylpentane	0.00	0	N.D.	ug/L
16)	Benzene #2	12.51	898	0.779	ug/L
17)	Toluene #2	15.59	1135	0.797	ug/L
18)	Nonane	0.00	0	N.D.	ug/L
19)	Ethylbenzene #2	0.00	0	N.D.	ug/L
20)	m,p-Xylene #2	18.07	1351	0.808	ug/L
21)	o-Xylene #2	18.68	767	0.443	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	980	0.574	ug/L
24)	Naphthalene #2	0.00	0	N.D.	ug/L
25) H	C5- C8 Aliphatics (unadjus	0.00	0	N.D.	ug/L
26) H	C9- C12 Aliphatics (unadju	0.00	0	N.D.	ug/L

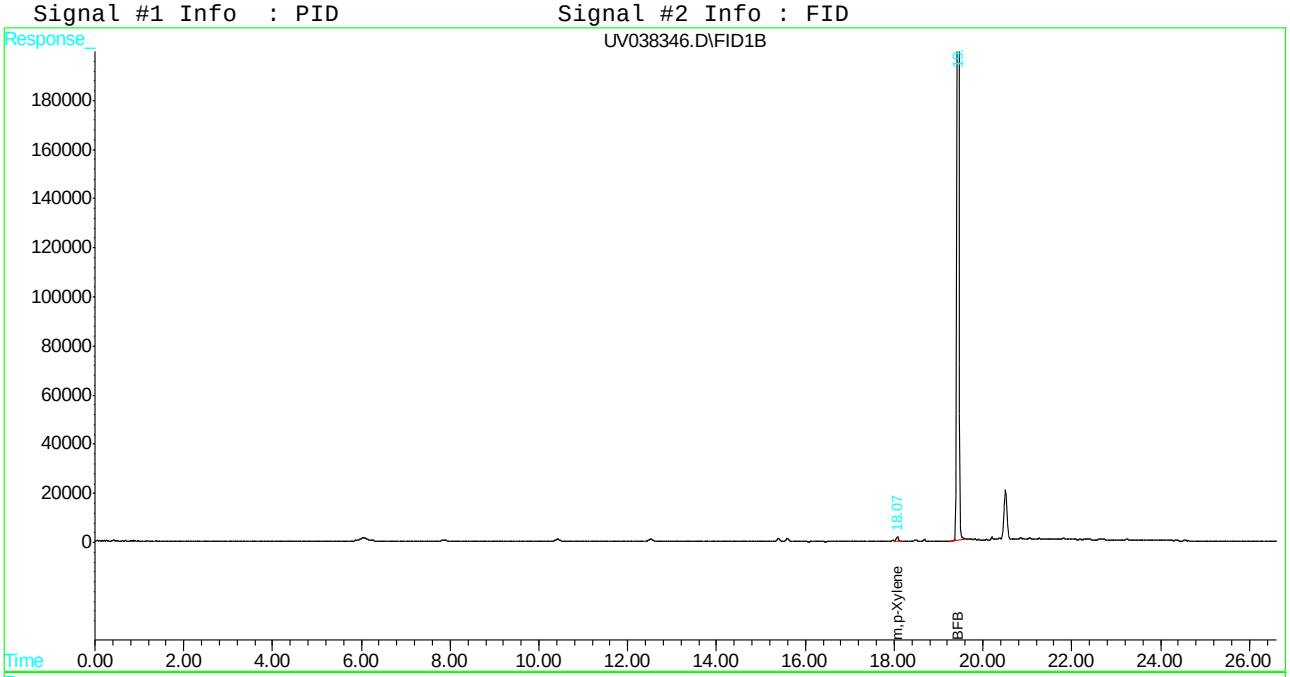
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038346.D MAVPHUV.M Mon Mar 08 11:46:07 2010

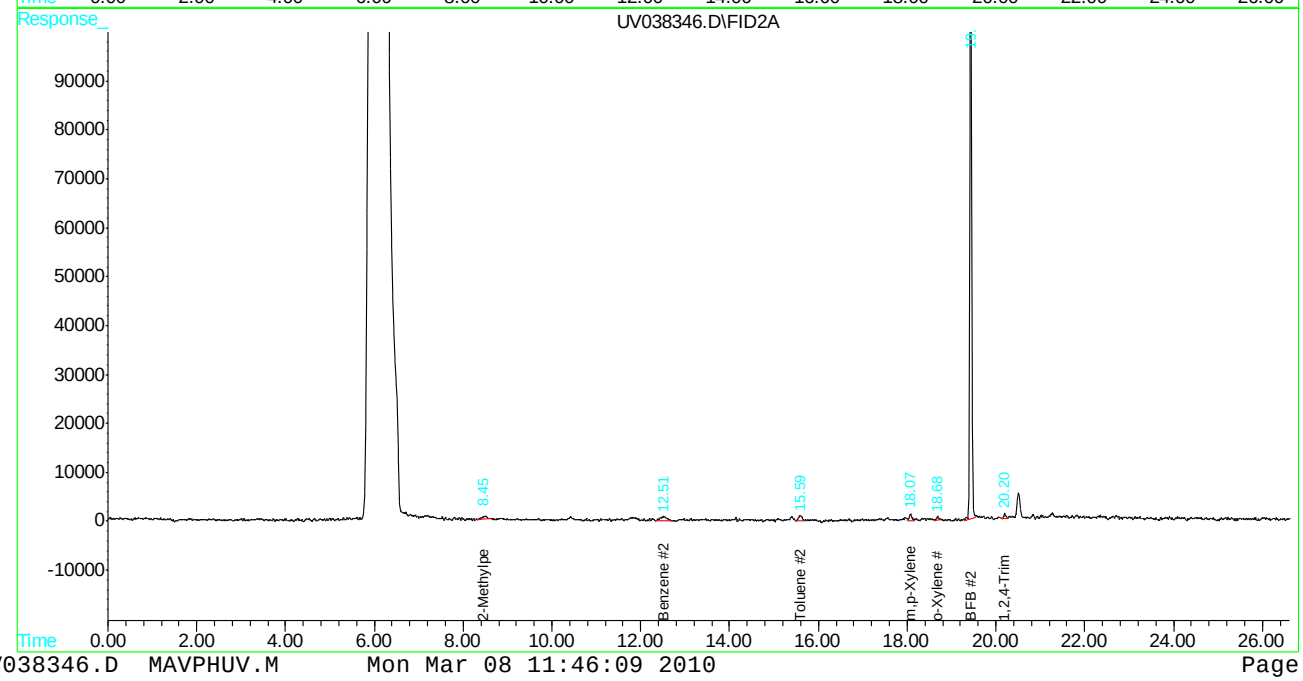
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038346.D\FID1B.CH Vial: 27
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038346.D\FID2A.CH
Acq On : 5 Mar 2010 11:46 pm Operator: ArielH
Sample : f71731-5dup Inst : VOA4
Misc : gc10702,guv2201,5.51,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 11:43 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037863.D\FID1B.CH Vial: 15
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037863.D\FID2A.CH
Acq On : 4 Feb 2010 12:04 pm Operator: ArielH
Sample : ic2172-1 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
7) S BFB	19.42	629560	10.268 ug/L
Spiked Amount 40.000 Range 70 - 130		Recovery =	25.67%#
22) S BFB #2	19.42	188241	9.116 ug/L
Spiked Amount 40.000 Range 70 - 130		Recovery =	22.79%#
Target Compounds			
1) Methyl tert butyl ether	8.93	6011	15.238 ug/L
2) Benzene	12.50	10740	5.181 ug/L
3) Toluene	15.56	34692	15.254 ug/L
4) Ethylbenzene	17.95	12341	5.043 ug/L
5) m,p-Xylene	18.06	55996	21.873 ug/L
6) o-Xylene	18.66	25558	10.306 ug/L
8) 1,2,4-Trimethylbenzene	20.19	26217	10.003 ug/L
9) Naphthalene	23.24	4574	6.060 ug/L
10) H C9- C10 Aromatics (unadjus	20.00	1320824	3.244 ug/L
12) Pentane	7.16	5540	10.597 ug/L
13) 2-Methylpentane	8.47	8581	15.676 ug/L
14) Methyl tert butyl ether #2	8.92	4366	16.057 ug/L
15) 2,2,4-Trimethylpentane	11.81	9339	17.078 ug/L
16) Benzene #2	12.50	5873	5.090 ug/L
17) Toluene #2	15.56	20812	14.617 ug/L
18) Nonane	17.54	14161	10.286 ug/L
19) Ethylbenzene #2	17.96	8460	5.002 ug/L
20) m,p-Xylene #2	18.06	32781	19.601 ug/L
21) o-Xylene #2	18.66	17436	10.060 ug/L
23) 1,2,4-Trimethylbenzene #2	20.19	16712	9.783 ug/L
24) Naphthalene #2	23.24	2492	6.722 ug/L
25) H C5- C8 Aliphatics (unadjus	15.10	4816249	27.126 ug/L
26) H C9- C12 Aliphatics (unadju	20.00	4615031	37.154 ug/L

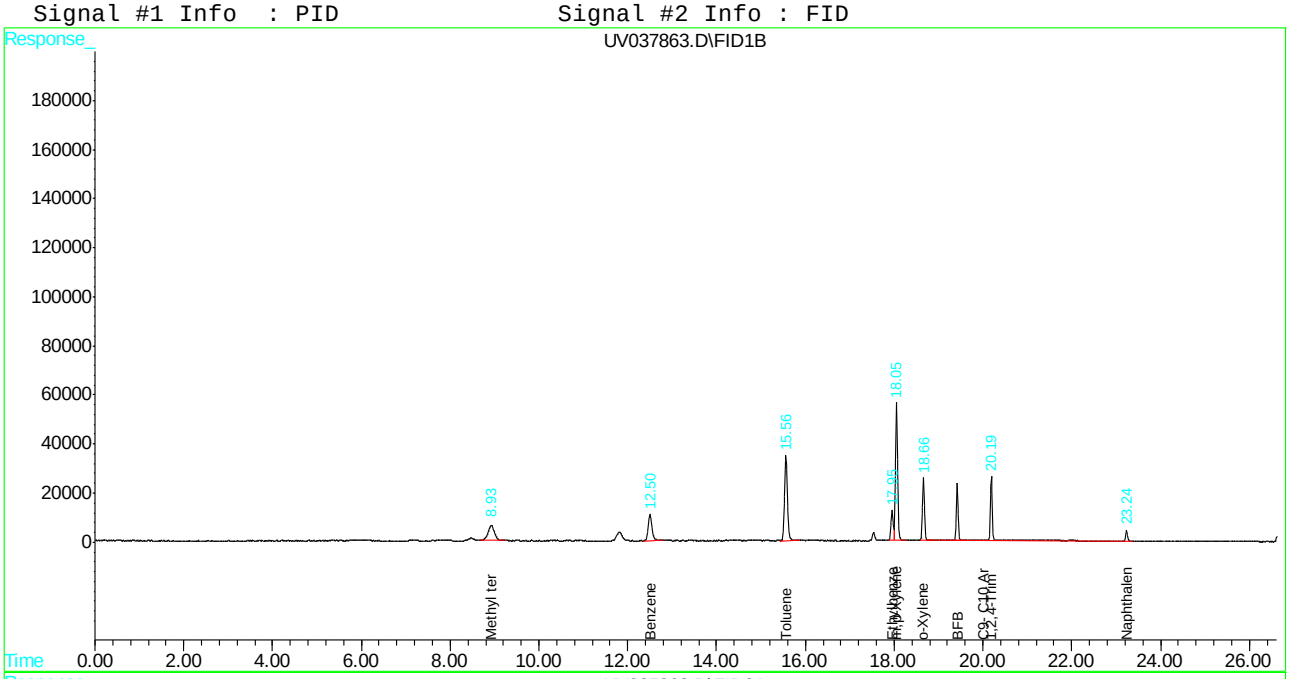
(f)=RT Delta > 1/2 Window (m)=manual int.
UV037863.D MAVPHUV.M Fri Feb 05 13:45:18 2010

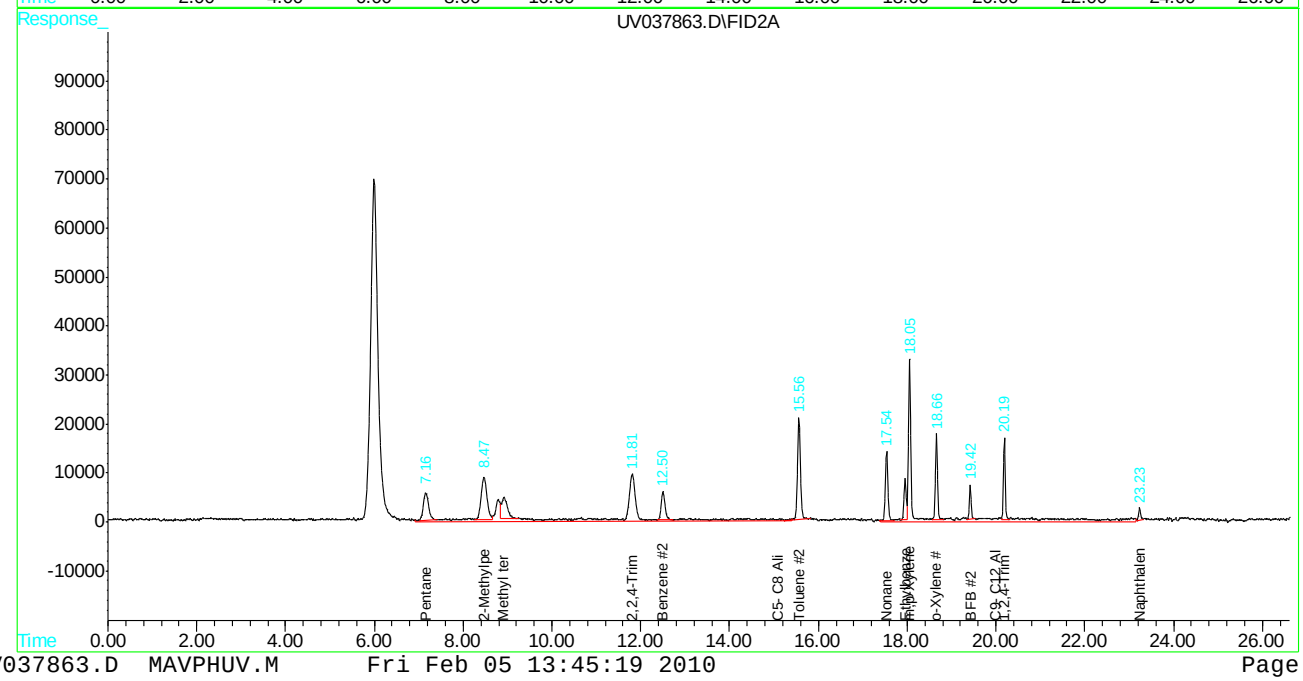
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037863.D\FID1B.CH Vial: 15
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037863.D\FID2A.CH
Acq On : 4 Feb 2010 12:04 pm Operator: ArielH
Sample : ic2172-1 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037864.D\FID1B.CH Vial: 16
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037864.D\FID2A.CH
Acq On : 4 Feb 2010 12:36 pm Operator: ArielH
Sample : ic2172-2 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	2649353	43.209	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 108.02%
22) S	BFB #2	19.43	828166	40.107	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 100.27%
	Target Compounds				
1)	Methyl tert butyl ether	8.95	25288	64.113	ug/L
2)	Benzene	12.52	44534	21.485	ug/L
3)	Toluene	15.57	140261	61.672	ug/L
4)	Ethylbenzene	17.96	51858	21.190	ug/L
5)	m,p-Xylene	18.06	227833	88.997	ug/L
6)	o-Xylene	18.67	104414	42.104	ug/L
8)	1,2,4-Trimethylbenzene	20.19	110546	42.181	ug/L
9)	Naphthalene	23.24	24519	32.483	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	3711146	39.859	ug/L
12)	Pentane	7.18	22655	43.330	ug/L
13)	2-Methylpentane	8.49	35994	65.755	ug/L
14)	Methyl tert butyl ether #2	8.95	16842	61.949	ug/L
15)	2,2,4-Trimethylpentane	11.83	36550	66.840	ug/L
16)	Benzene #2	12.52	24131	20.916	ug/L
17)	Toluene #2	15.58	89251	62.684	ug/L
18)	Nonane	17.55	58071	42.182	ug/L
19)	Ethylbenzene #2	17.96	35338	20.893	ug/L
20)	m,p-Xylene #2	18.06	138954	83.087	ug/L
21)	o-Xylene #2	18.67	72250	41.688	ug/L
23)	1,2,4-Trimethylbenzene #2	20.19	70740	41.411	ug/L
24)	Naphthalene #2	23.24	11671	31.482	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	13174005	203.859	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	13826254	217.450	ug/L

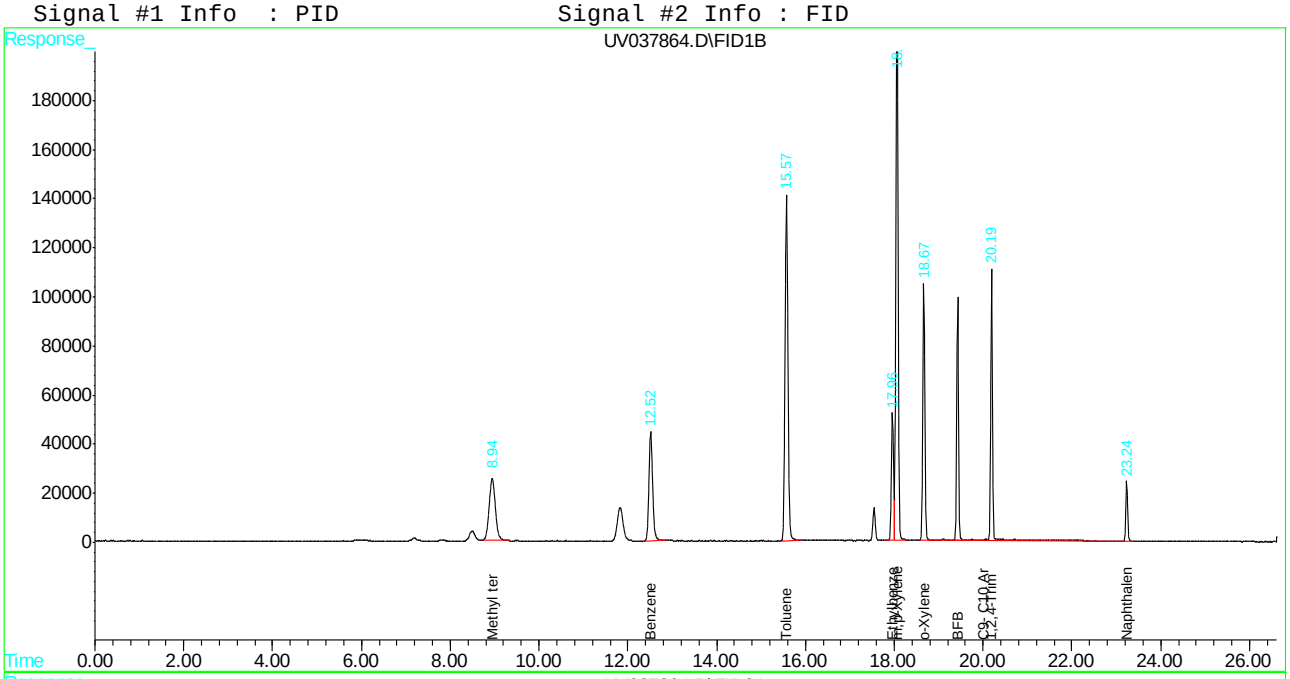
(f)=RT Delta > 1/2 Window (m)=manual int.
UV037864.D MAVPHUV.M Fri Feb 05 13:45:20 2010

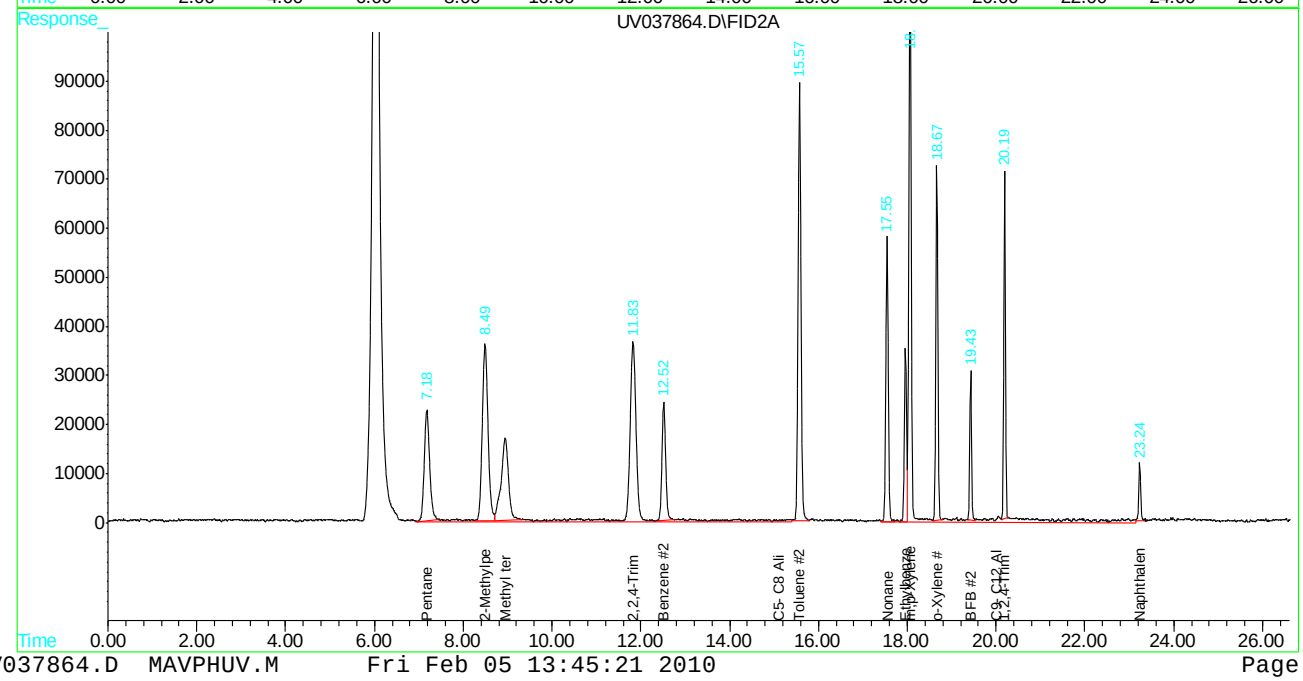
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037864.D\FID1B.CH Vial: 16
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037864.D\FID2A.CH
Acq On : 4 Feb 2010 12:36 pm Operator: ArielH
Sample : ic2172-2 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037865.D\FID1B.CH Vial: 17
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037865.D\FID2A.CH
Acq On : 4 Feb 2010 1:07 pm Operator: ArielH
Sample : ic2172-3 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
7) S BFB	19.43	5277393	86.069 ug/L
Spiked Amount 40.000 Range 70 - 130		Recovery = 215.17%#	
22) S BFB #2	19.43	1657732	80.282 ug/L
Spiked Amount 40.000 Range 70 - 130		Recovery = 200.71%#	
Target Compounds			
1) Methyl tert butyl ether	8.94	47527	120.493 ug/L
2) Benzene	12.51	80590	38.880 ug/L
3) Toluene	15.58	270866	119.097 ug/L
4) Ethylbenzene	17.97	97386	39.793 ug/L
5) m,p-Xylene	18.07	451489	176.363 ug/L
6) o-Xylene	18.67	198541	80.061 ug/L
8) 1,2,4-Trimethylbenzene	20.20	212165	80.955 ug/L
9) Naphthalene	23.24	73784	97.748 ug/L
10) H C9- C10 Aromatics (unadjus	20.00	6494114	82.488 ug/L
12) Pentane	7.18	41283	78.958 ug/L
13) 2-Methylpentane	8.49	65241	119.184 ug/L
14) Methyl tert butyl ether #2	8.94	32211	118.477 ug/L
15) 2,2,4-Trimethylpentane	11.83	65558	119.887 ug/L
16) Benzene #2	12.52	45904	39.789 ug/L
17) Toluene #2	15.58	170051	119.433 ug/L
18) Nonane	17.55	111148	80.736 ug/L
19) Ethylbenzene #2	17.97	67628	39.985 ug/L
20) m,p-Xylene #2	18.07	267726	160.085 ug/L
21) o-Xylene #2	18.67	139061	80.238 ug/L
23) 1,2,4-Trimethylbenzene #2	20.20	138314	80.968 ug/L
24) Naphthalene #2	23.24	34860	94.028 ug/L
25) H C5- C8 Aliphatics (unadjus	15.10	23000222	413.284 ug/L
26) H C9- C12 Aliphatics (unadju	20.00	25293235	441.899 ug/L

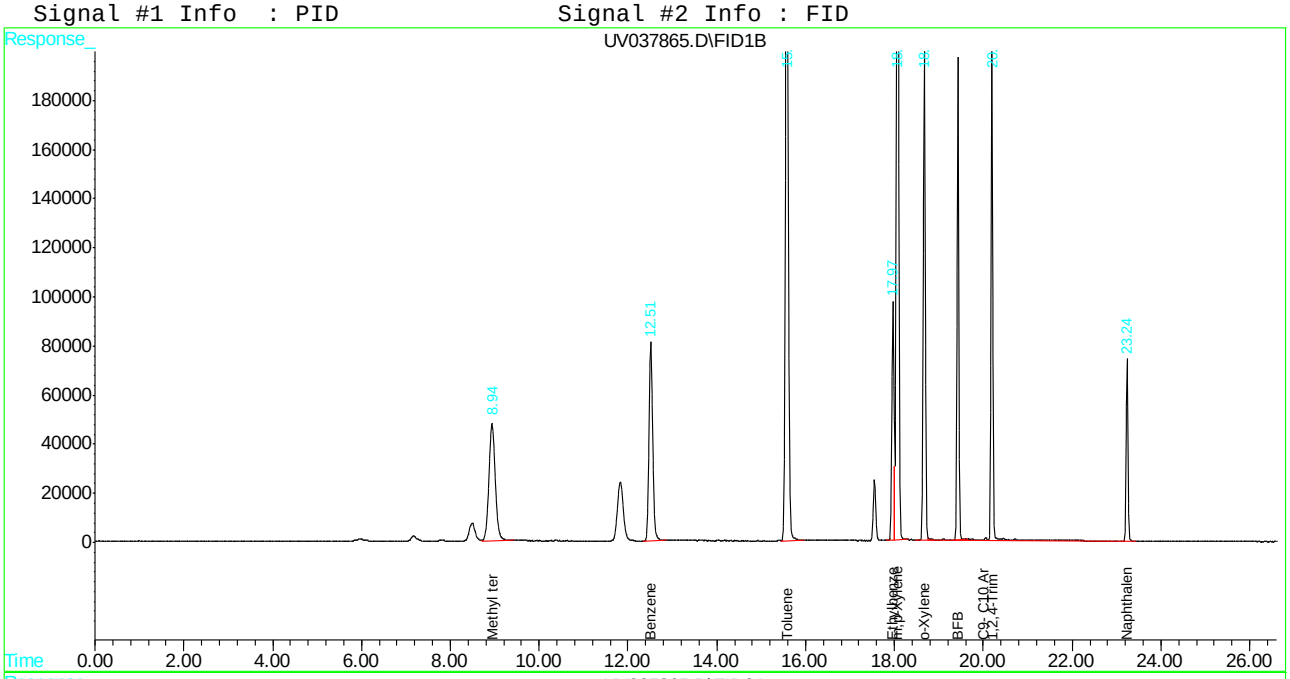
(f)=RT Delta > 1/2 Window (m)=manual int.
UV037865.D MAVPHUV.M Fri Feb 05 13:45:24 2010

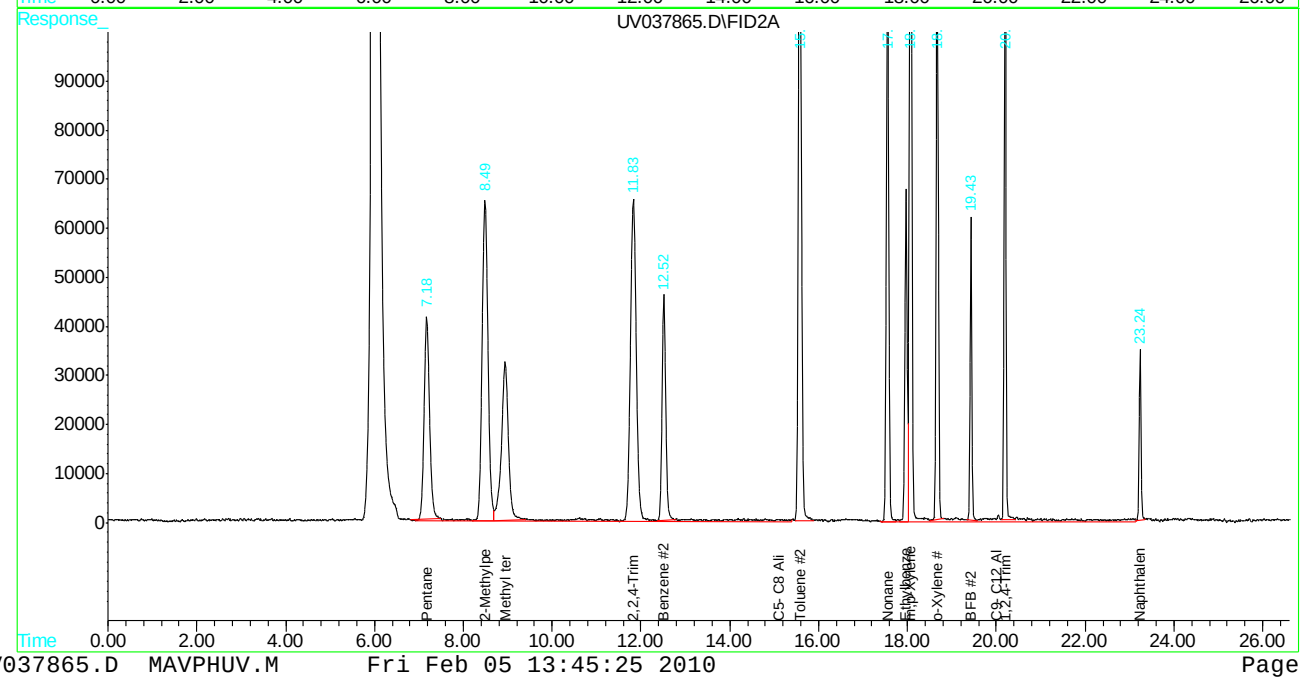
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037865.D\FID1B.CH Vial: 17
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037865.D\FID2A.CH
Acq On : 4 Feb 2010 1:07 pm Operator: ArielH
Sample : ic2172-3 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037866.D\FID1B.CH Vial: 19
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037866.D\FID2A.CH
Acq On : 4 Feb 2010 1:39 pm Operator: ArielH
Sample : icc2172-4 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	11067800	180.506	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 451.26%#
22) S	BFB #2	19.43	3509883	169.980	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 424.95%#
	Target Compounds				
1)	Methyl tert butyl ether	8.95	93074	235.968	ug/L
2)	Benzene	12.52	163446	78.853	ug/L
3)	Toluene	15.58	577150	253.767	ug/L
4)	Ethylbenzene	17.96	198050	80.926	ug/L
5)	m,p-Xylene	18.06	902283	352.454	ug/L
6)	o-Xylene	18.67	410178	165.402	ug/L
8)	1,2,4-Trimethylbenzene	20.19	437706	167.015	ug/L
9)	Naphthalene	23.24	149573	198.153	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	12338512	172.013	ug/L
12)	Pentane	7.18	85203	162.960	ug/L
13)	2-Methylpentane	8.50	132818	242.635	ug/L
14)	Methyl tert butyl ether #2	8.95	65060	239.304	ug/L
15)	2,2,4-Trimethylpentane	11.83	132094	241.562	ug/L
16)	Benzene #2	12.52	93456	81.006	ug/L
17)	Toluene #2	15.58	351814	247.091	ug/L
18)	Nonane	17.55	224085	162.771	ug/L
19)	Ethylbenzene #2	17.96	139199	82.301	ug/L
20)	m,p-Xylene #2	18.06	555726	332.293	ug/L
21)	o-Xylene #2	18.67	286068	165.060	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	283102	165.726	ug/L
24)	Naphthalene #2	23.24	73527	198.328	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	45227494	893.785	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	49610495	917.872	ug/L

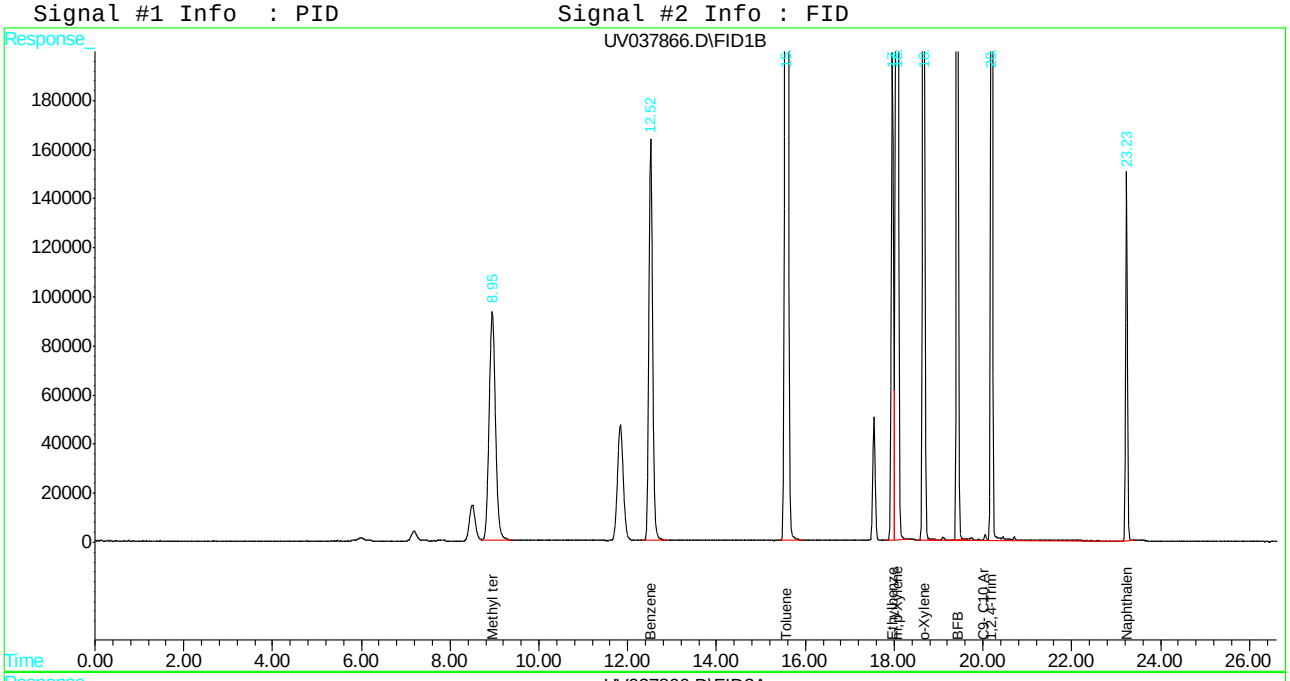
(f)=RT Delta > 1/2 Window (m)=manual int.
UV037866.D MAVPHUV.M Fri Feb 05 13:45:27 2010

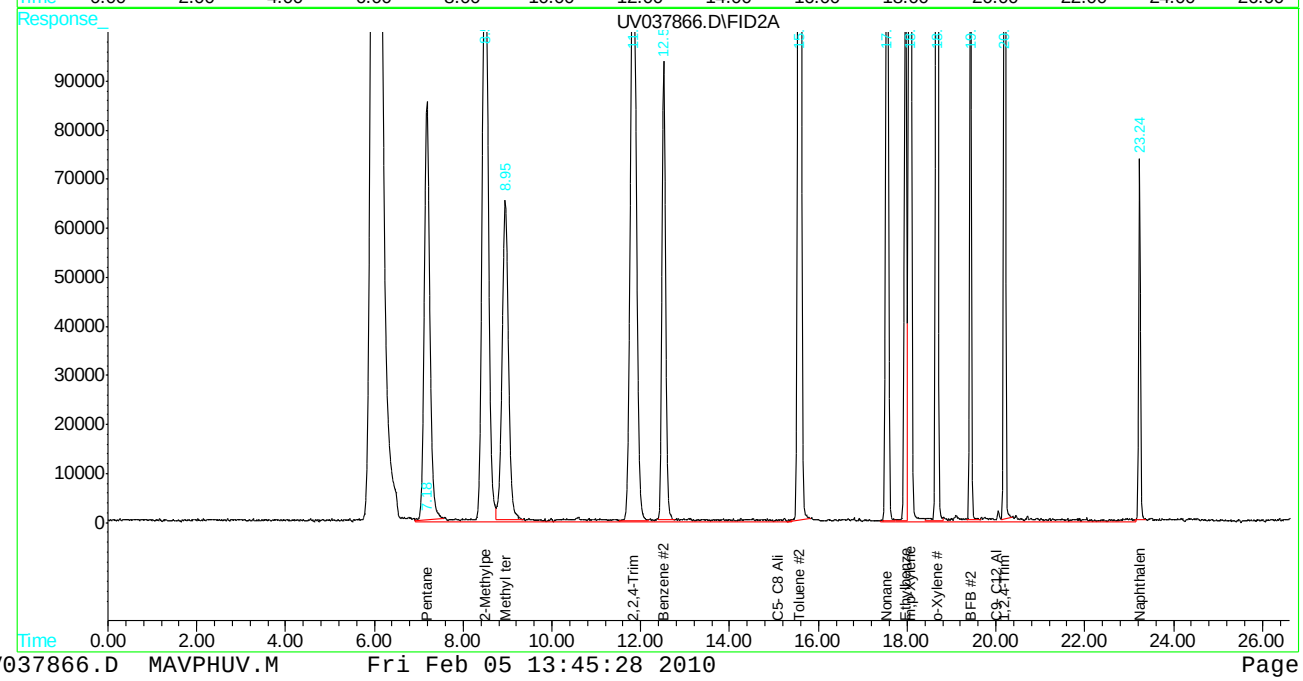
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037866.D\FID1B.CH Vial: 19
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037866.D\FID2A.CH
Acq On : 4 Feb 2010 1:39 pm Operator: ArielH
Sample : icc2172-4 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037867.D\FID1B.CH Vial: 20
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037867.D\FID2A.CH
Acq On : 4 Feb 2010 2:11 pm Operator: ArielH
Sample : ic2172-5 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.42	15538467	253.418	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 633.54%#
22) S	BFB #2	19.43	5836733	282.666	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 706.66%#
	Target Compounds				
1)	Methyl tert butyl ether	8.94	157899	400.317	ug/L
2)	Benzene	12.51	275662	132.991	ug/L
3)	Toluene	15.57	953123	419.079	ug/L
4)	Ethylbenzene	17.96	328472	134.218	ug/L
5)	m,p-Xylene	18.06	1241916	485.123	ug/L
6)	o-Xylene	18.67	664411	267.920	ug/L
8)	1,2,4-Trimethylbenzene	20.19	709791	270.834	ug/L
9)	Naphthalene	23.24	230454	305.304	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	19587190	283.048	ug/L
12)	Pentane	7.18	134396	257.045	ug/L
13)	2-Methylpentane	8.49	211103	385.647	ug/L
14)	Methyl tert butyl ether #2	8.94	109042	401.081	ug/L
15)	2,2,4-Trimethylpentane	11.83	200052	365.837	ug/L
16)	Benzene #2	12.51	153976	133.464	ug/L
17)	Toluene #2	15.57	581183	408.185	ug/L
18)	Nonane	17.55	361773	262.786	ug/L
19)	Ethylbenzene #2	17.96	228081	134.852	ug/L
20)	m,p-Xylene #2	18.06	909670	543.931	ug/L
21)	o-Xylene #2	18.67	467125	269.530	ug/L
23)	1,2,4-Trimethylbenzene #2	20.19	463629	271.405	ug/L
24)	Naphthalene #2	23.24	114544	308.963	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	70346389	1448.706	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	80844589	1529.232	ug/L

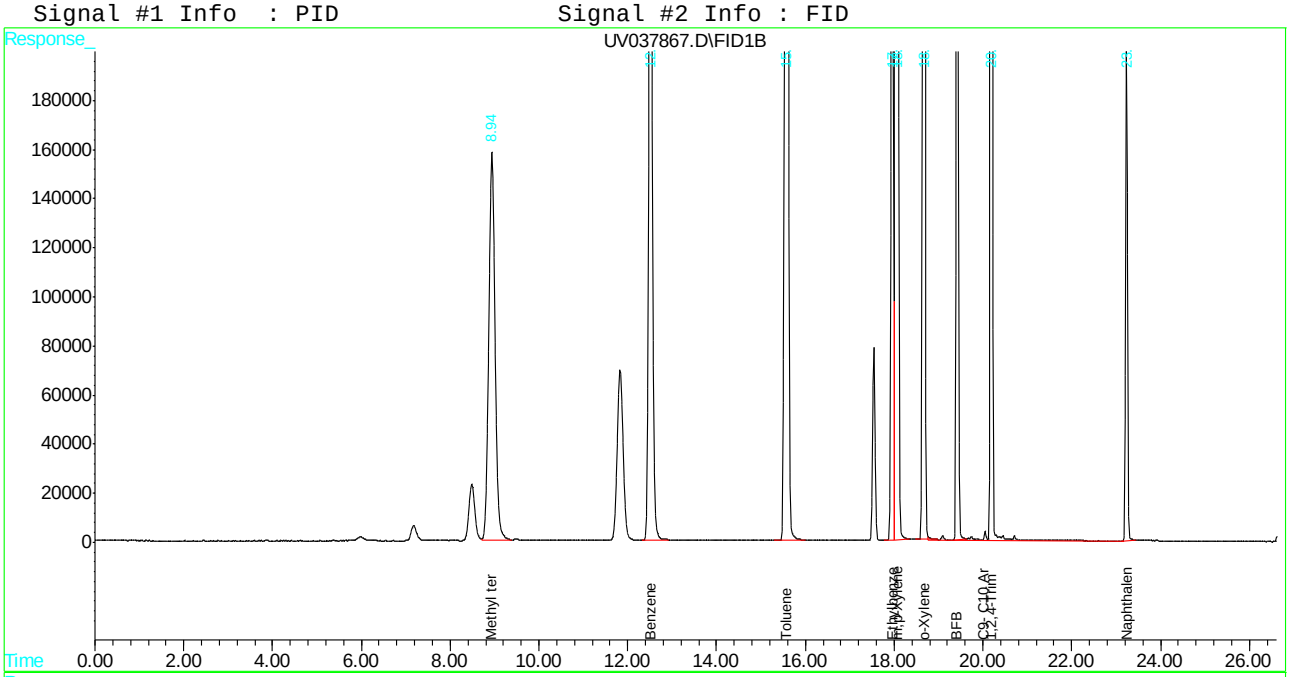
(f)=RT Delta > 1/2 Window (m)=manual int.
UV037867.D MAVPHUV.M Fri Feb 05 13:45:30 2010

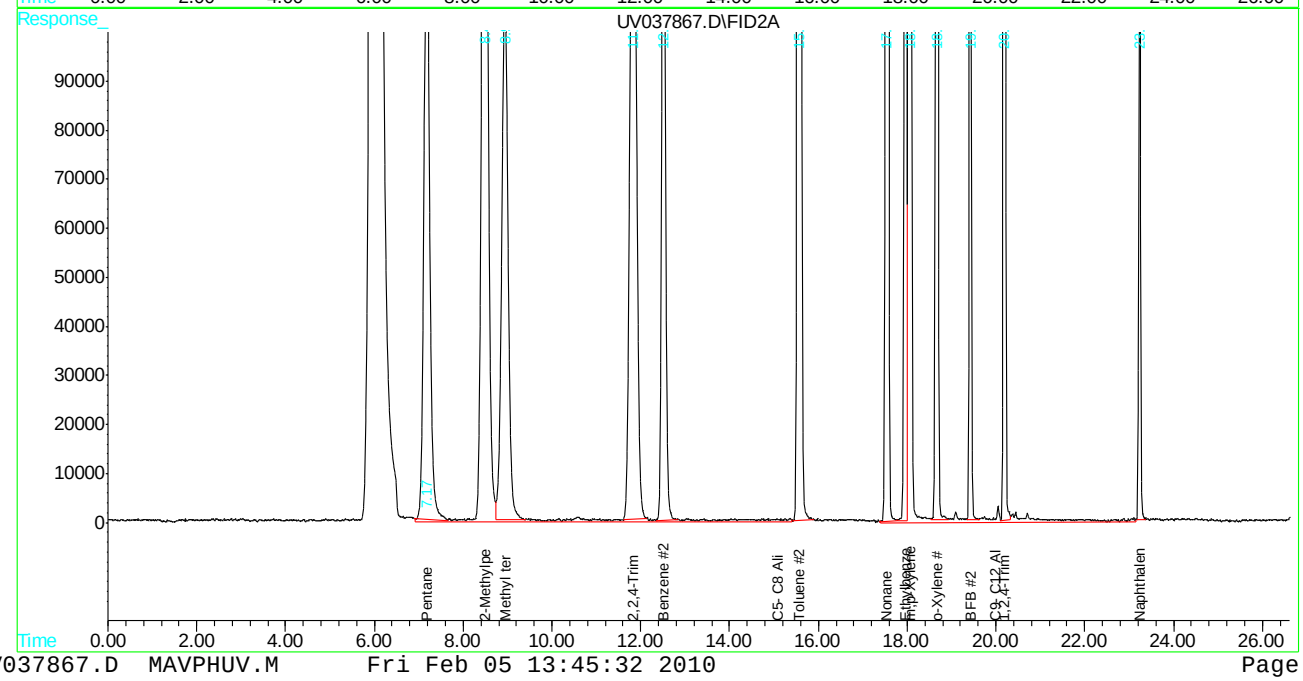
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037867.D\FID1B.CH Vial: 20
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037867.D\FID2A.CH
Acq On : 4 Feb 2010 2:11 pm Operator: ArielH
Sample : ic2172-5 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037868.D\FID1B.CH Vial: 21
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037868.D\FID2A.CH
Acq On : 4 Feb 2010 2:42 pm Operator: ArielH
Sample : ic2172-6 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.42	19227051	313.576	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 783.94%#
22) S	BFB #2	19.42	8344395	404.109	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 1010.27%#
	Target Compounds				
1)	Methyl tert butyl ether	8.95	230769	585.062	ug/L
2)	Benzene	12.51	407047	196.377	ug/L
3)	Toluene	15.57	1238469	544.543	ug/L
4)	Ethylbenzene	17.96	473226	193.367	ug/L
5)	m,p-Xylene	18.06	1482536	579.115	ug/L
6)	o-Xylene	18.66	917928	370.150	ug/L
8)	1,2,4-Trimethylbenzene	20.19	966624	368.834	ug/L
9)	Naphthalene	23.23	311366	412.495	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	26951415	395.852	ug/L
12)	Pentane	7.18	195252	373.440	ug/L
13)	2-Methylpentane	8.49	307631	561.986	ug/L
14)	Methyl tert butyl ether #2	8.95	156215	574.594	ug/L
15)	2,2,4-Trimethylpentane	11.83	285722	522.503	ug/L
16)	Benzene #2	12.51	225082	195.097	ug/L
17)	Toluene #2	15.57	840699	590.452	ug/L
18)	Nonane	17.54	524141	380.727	ug/L
19)	Ethylbenzene #2	17.96	325888	192.680	ug/L
20)	m,p-Xylene #2	18.06	1299269	776.889	ug/L
21)	o-Xylene #2	18.67	661746	381.825	ug/L
23)	1,2,4-Trimethylbenzene #2	20.19	662287	387.698	ug/L
24)	Naphthalene #2	23.23	151613	408.950	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	100744252	2138.432	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	114785628	2193.576	ug/L

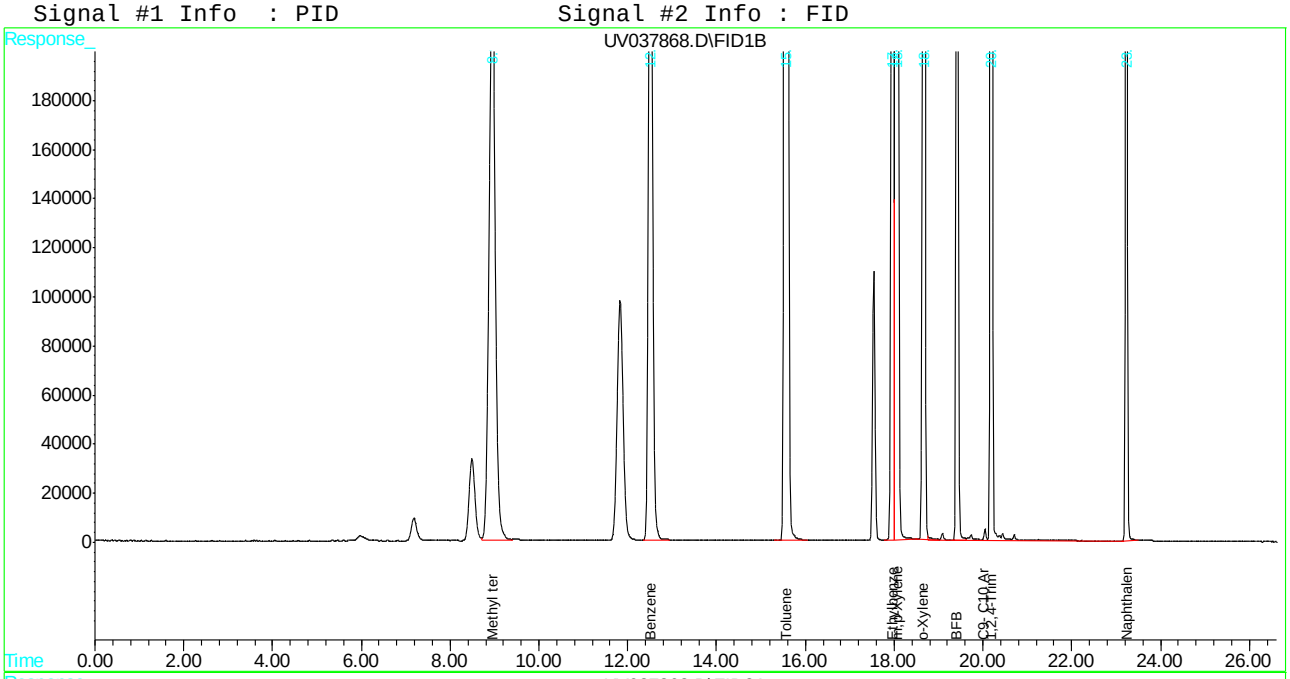
(f)=RT Delta > 1/2 Window (m)=manual int.
UV037868.D MAVPHUV.M Fri Feb 05 13:45:34 2010

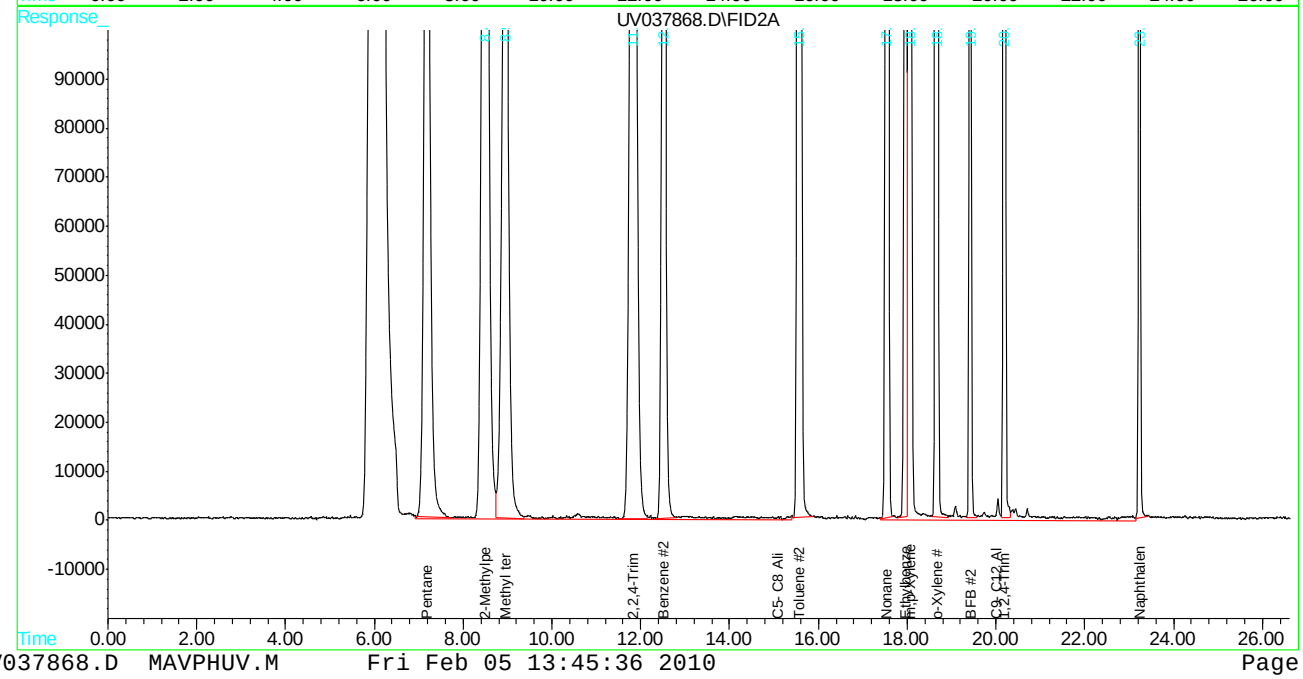
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037868.D\FID1B.CH Vial: 21
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037868.D\FID2A.CH
Acq On : 4 Feb 2010 2:42 pm Operator: ArielH
Sample : ic2172-6 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:09 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:06:13 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037869.D\FID1B.CH Vial: 22
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037869.D\FID2A.CH
Acq On : 4 Feb 2010 3:14 pm Operator: ArielH
Sample : icv2172-4 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:39 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.42	10982135	179.109	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 447.77%#
22) S	BFB #2	19.42	3518362	170.390	ug/L
Spiked Amount	40.000	Range	70 - 130	Recovery	= 425.97%#
	Target Compounds				
1)	Methyl tert butyl ether	8.94	95037	240.945	ug/L
2)	Benzene	12.51	158918	76.669	ug/L
3)	Toluene	15.57	565701	248.733	ug/L
4)	Ethylbenzene	17.96	191951	78.434	ug/L
5)	m,p-Xylene	18.06	870415	340.005	ug/L
6)	o-Xylene	18.66	401095	161.740	ug/L
8)	1,2,4-Trimethylbenzene	20.19	411256	156.922	ug/L
9)	Naphthalene	23.23	155636	174.271	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	11712749	161.344	ug/L
12)	Pentane	7.18	59320	113.455	ug/L
13)	2-Methylpentane	8.49	119630	218.543	ug/L
14)	Methyl tert butyl ether #2	8.94	67104	246.822	ug/L
15)	2,2,4-Trimethylpentane	11.82	127791	233.693	ug/L
16)	Benzene #2	12.51	91611	79.407	ug/L
17)	Toluene #2	15.57	345421	242.601	ug/L
18)	Nonane	17.54	214074	155.500	ug/L
19)	Ethylbenzene #2	17.96	134369	79.445	ug/L
20)	m,p-Xylene #2	18.06	541145	323.574	ug/L
21)	o-Xylene #2	18.66	278996	160.980	ug/L
23)	1,2,4-Trimethylbenzene #2	20.19	267844	156.794	ug/L
24)	Naphthalene #2	23.23	77361	208.668	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	41777074	1178.354	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	48005417	886.091	ug/L

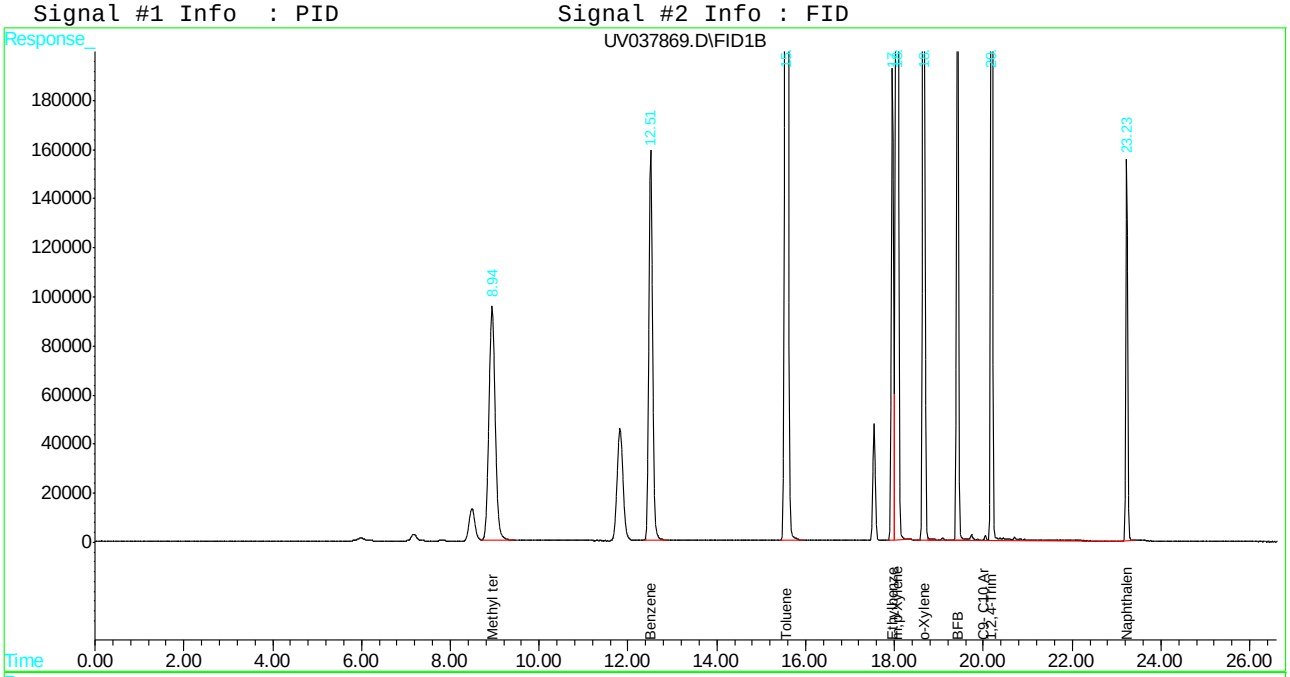
(f)=RT Delta > 1/2 Window (m)=manual int.
UV037869.D MAVPHUV.M Fri Feb 05 13:45:37 2010

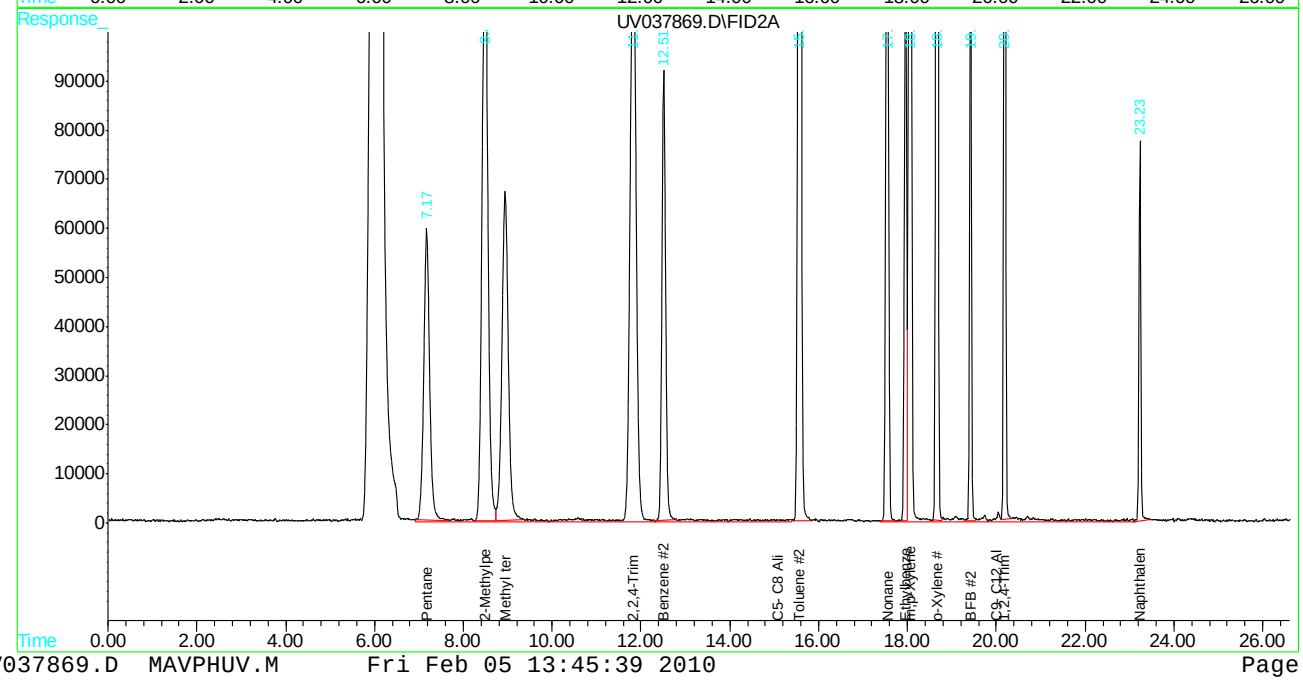
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\020410\UV037869.D\FID1B.CH Vial: 22
Signal #2 : C:\HPCHEM\2\DATA\020410\UV037869.D\FID2A.CH
Acq On : 4 Feb 2010 3:14 pm Operator: ArielH
Sample : icv2172-4 Inst : VOA4
Misc : gc10598,guv2172,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Feb 5 13:39 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038320.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038320.D\FID2A.CH
Acq On : 5 Mar 2010 9:15 am Operator: ArielH
Sample : cc2172-4 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 5 9:51 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	10325884	168.406	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 84.20%
22) S	BFB #2	19.43	3274666	158.588	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery	= 79.29%
	Target Compounds				
1)	Methyl tert butyl ether	8.95	82615	209.450	ug/L
2)	Benzene	12.52	169984	82.008	ug/L
3)	Toluene	15.57	587190	258.182	ug/L
4)	Ethylbenzene	17.96	203236	83.045	ug/L
5)	m,p-Xylene	18.06	899618	351.413	ug/L
6)	o-Xylene	18.67	404196	162.990	ug/L
8)	1,2,4-Trimethylbenzene	20.20	438221	167.211	ug/L
9)	Naphthalene	23.24	124643	138.013	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	12241045	169.423	ug/L
12)	Pentane	7.18	84200	161.042	ug/L
13)	2-Methylpentane	8.50	129667	236.879	ug/L
14)	Methyl tert butyl ether #2	8.95	56997	209.646	ug/L
15)	2,2,4-Trimethylpentane	11.83	127622	233.384	ug/L
16)	Benzene #2	12.52	94583	81.983	ug/L
17)	Toluene #2	15.58	355832	249.913	ug/L
18)	Nonane	17.55	237593	172.583	ug/L
19)	Ethylbenzene #2	17.96	140490	83.064	ug/L
20)	m,p-Xylene #2	18.06	555722	332.290	ug/L
21)	o-Xylene #2	18.67	283542	163.603	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	284455	166.518	ug/L
24)	Naphthalene #2	23.24	60217	162.426	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	43873314	1242.974	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	50255071	930.125	ug/L

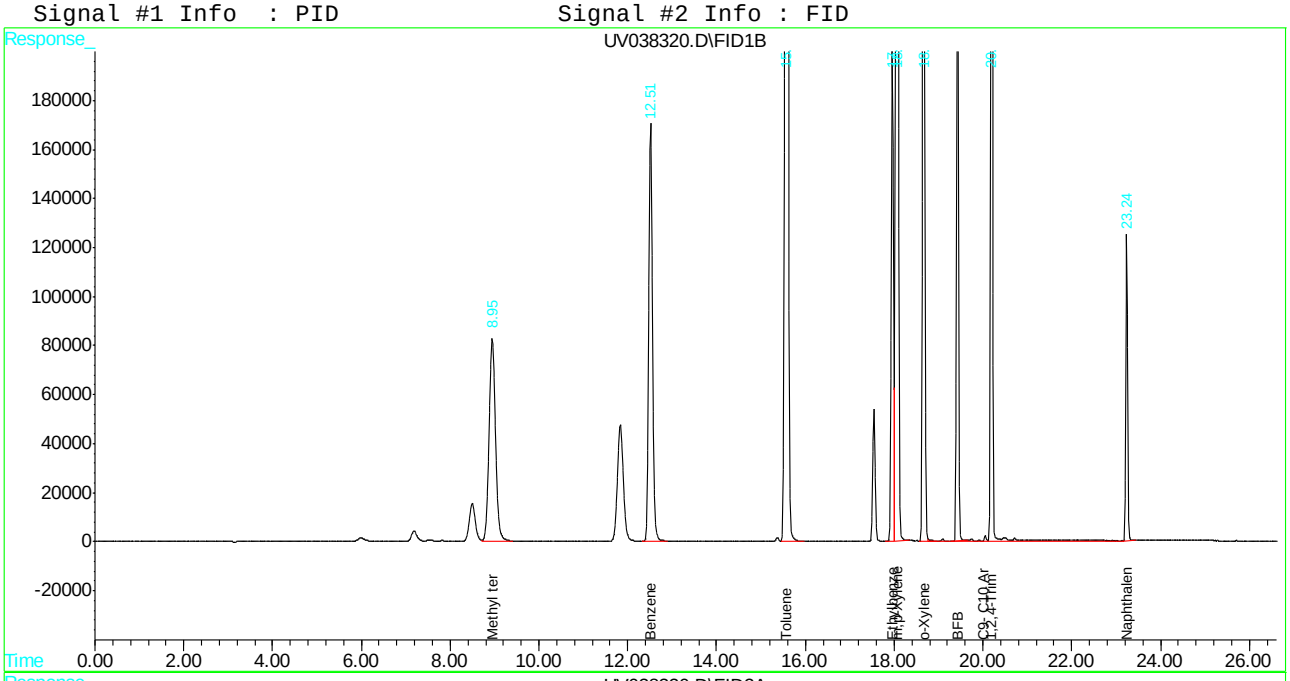
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038320.D MAVPHUV.M Mon Mar 08 11:44:26 2010

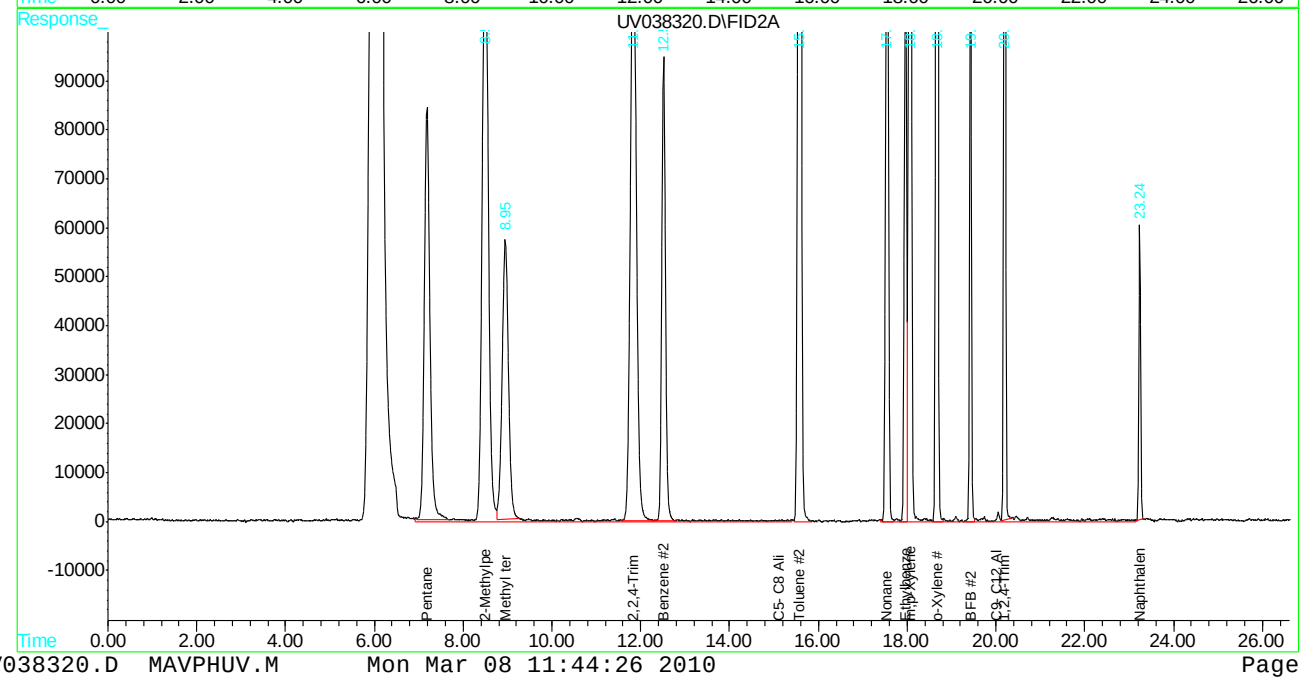
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038320.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038320.D\FID2A.CH
Acq On : 5 Mar 2010 9:15 am Operator: ArielH
Sample : cc2172-4 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 5 9:51 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038331.D\FID1B.CH Vial: 12
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038331.D\FID2A.CH
Acq On : 5 Mar 2010 3:46 pm Operator: ArielH
Sample : cc2172-3 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 5 16:23 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
7) S	BFB	19.43	5180979	84.497 ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery = 42.25%#
22) S	BFB #2	19.43	1632550	79.062 ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery = 39.53%#
	Target Compounds			
1)	Methyl tert butyl ether	8.96	45784	116.075 ug/L
2)	Benzene	12.54	81757	39.443 ug/L
3)	Toluene	15.59	246822	108.525 ug/L
4)	Ethylbenzene	17.97	90147	36.835 ug/L
5)	m,p-Xylene	18.07	416679	162.765 ug/L
6)	o-Xylene	18.67	181710	73.274 ug/L
8)	1,2,4-Trimethylbenzene	20.20	197987	75.546 ug/L
9)	Naphthalene	23.25	88127	97.680 ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	6644661	83.839 ug/L
12)	Pentane	7.21	37483	71.690 ug/L
13)	2-Methylpentane	8.52	59760	109.171 ug/L
14)	Methyl tert butyl ether #2	8.97	30410	111.855 ug/L
15)	2,2,4-Trimethylpentane	11.85	59116	108.106 ug/L
16)	Benzene #2	12.54	45408	39.359 ug/L
17)	Toluene #2	15.59	156280	109.761 ug/L
18)	Nonane	17.55	105392	76.555 ug/L
19)	Ethylbenzene #2	17.97	61916	36.608 ug/L
20)	m,p-Xylene #2	18.07	247328	147.888 ug/L
21)	o-Xylene #2	18.68	128613	74.210 ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	130487	76.386 ug/L
24)	Naphthalene #2	23.25	42686	115.139 ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	20712274	528.997 ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	23164408	399.861 ug/L

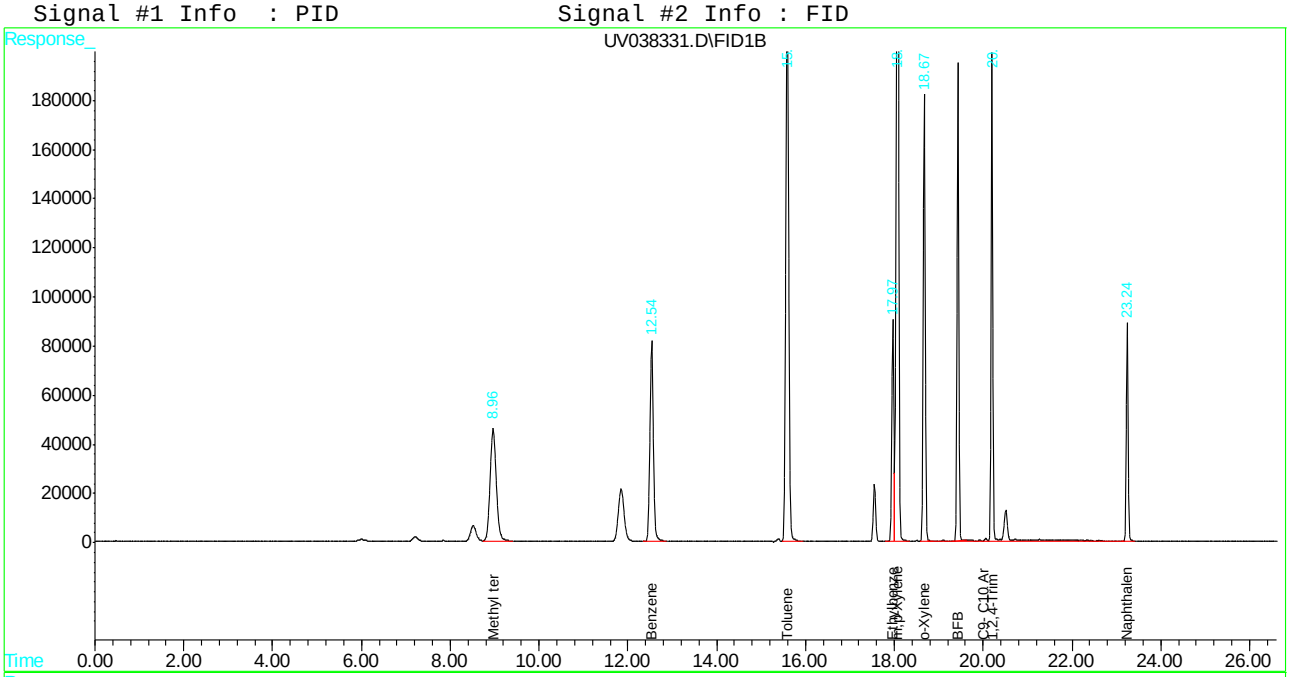
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038331.D MAVPHUV.M Mon Mar 08 11:45:04 2010

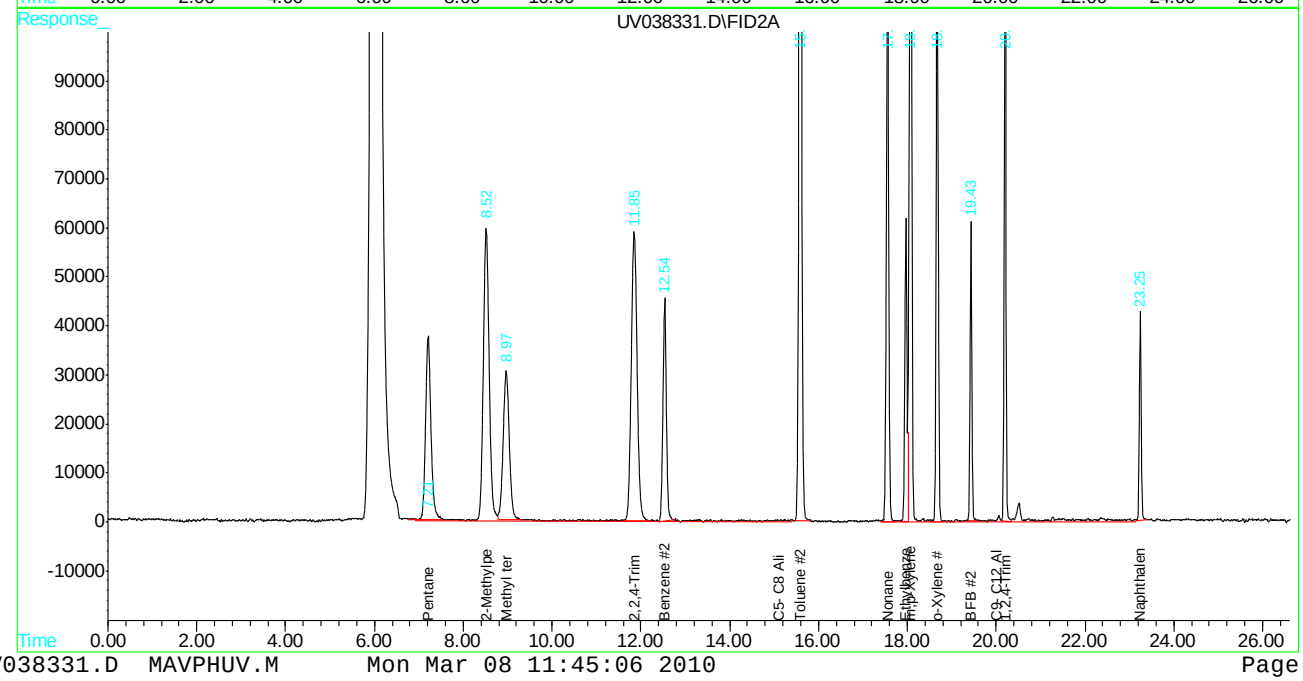
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038331.D\FID1B.CH Vial: 12
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038331.D\FID2A.CH
Acq On : 5 Mar 2010 3:46 pm Operator: ArielH
Sample : cc2172-3 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 5 16:23 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038342.D\FID1B.CH Vial: 23
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038342.D\FID2A.CH
Acq On : 5 Mar 2010 9:38 pm Operator: ArielH
Sample : cc2172-3 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	4922099	80.275	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	40.14%#
22) S	BFB #2	19.43	1548357	74.985	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	37.49%#
	Target Compounds				
1)	Methyl tert butyl ether	8.98	49534	125.581	ug/L
2)	Benzene	12.54	71443	34.467	ug/L
3)	Toluene	15.59	237105	104.253	ug/L
4)	Ethylbenzene	17.97	85556	34.959	ug/L
5)	m,p-Xylene	18.07	394891	154.254	ug/L
6)	o-Xylene	18.68	178523	71.989	ug/L
8)	1,2,4-Trimethylbenzene	20.20	187943	71.713	ug/L
9)	Naphthalene	23.24	103205	114.048	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	6619771	83.459	ug/L
12)	Pentane	7.22	34231	65.470	ug/L
13)	2-Methylpentane	8.53	54848	100.198	ug/L
14)	Methyl tert butyl ether #2	8.98	33191	122.084	ug/L
15)	2,2,4-Trimethylpentane	11.86	55384	101.280	ug/L
16)	Benzene #2	12.54	40357	34.980	ug/L
17)	Toluene #2	15.59	151092	106.117	ug/L
18)	Nonane	17.56	93872	68.187	ug/L
19)	Ethylbenzene #2	17.97	59541	35.203	ug/L
20)	m,p-Xylene #2	18.07	237602	142.073	ug/L
21)	o-Xylene #2	18.68	125812	72.593	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	123720	72.425	ug/L
24)	Naphthalene #2	23.25	50348	135.805	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	20150785	511.688	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	22359785	384.112	ug/L

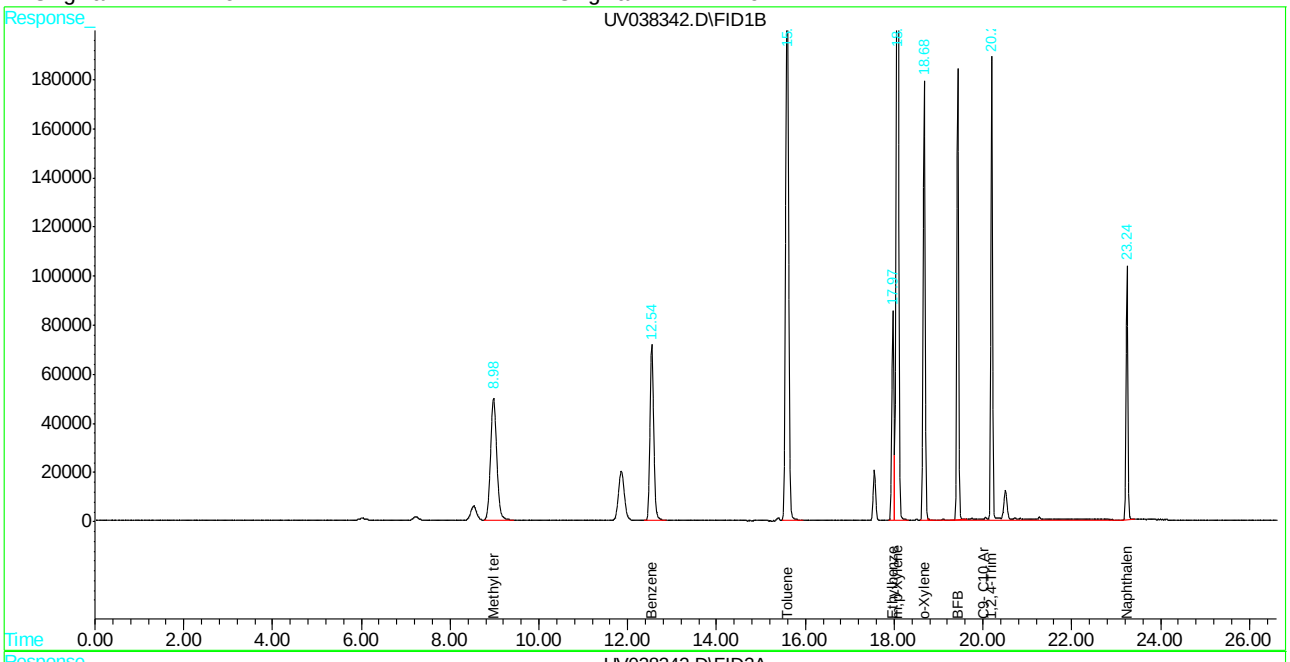
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038342.D MAVPHUV.M Mon Mar 08 11:45:50 2010

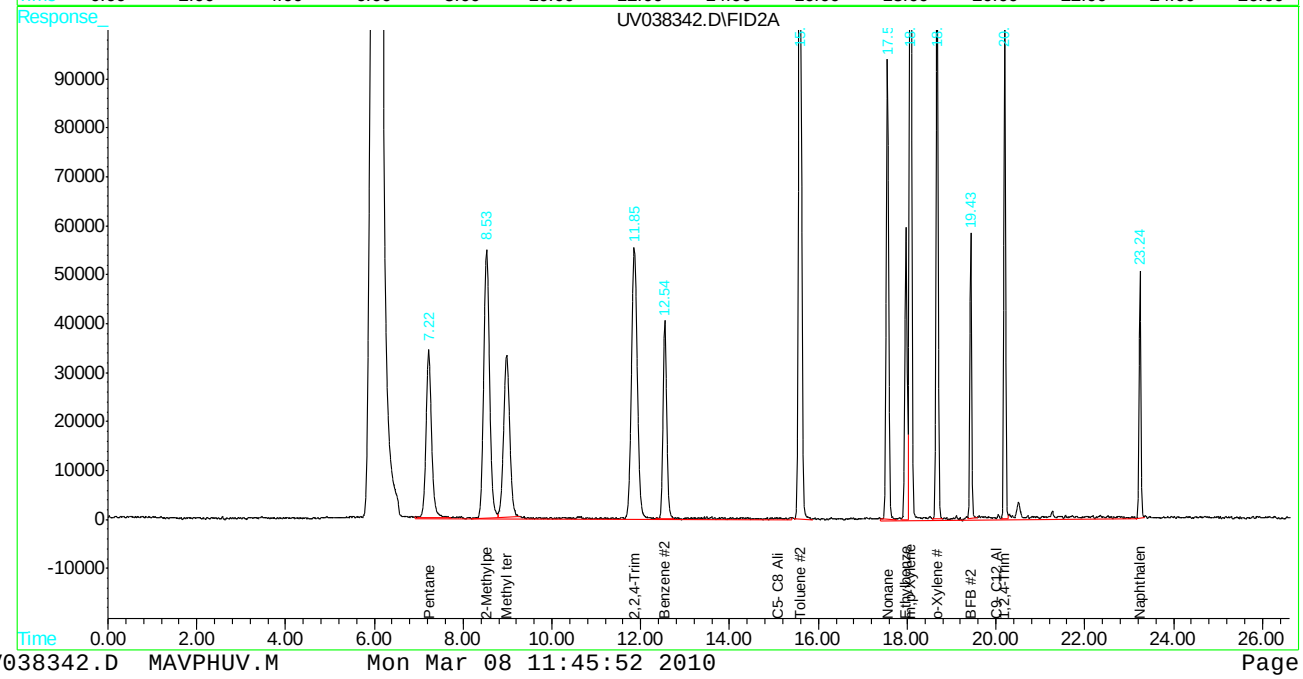
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038342.D\FID1B.CH Vial: 23
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038342.D\FID2A.CH
Acq On : 5 Mar 2010 9:38 pm Operator: ArielH
Sample : cc2172-3 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038349.D\FID1B.CH Vial: 30
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038349.D\FID2A.CH
Acq On : 6 Mar 2010 1:21 am Operator: ArielH
Sample : ecc2172-3 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Initial Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
7) S	BFB	19.43	5224764	85.211	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	42.61%#
22) S	BFB #2	19.44	1662633	80.519	ug/L
Spiked Amount	200.000	Range	70 - 130	Recovery =	40.26%#
	Target Compounds				
1)	Methyl tert butyl ether	8.97	49332	125.070	ug/L
2)	Benzene	12.54	82190	39.652	ug/L
3)	Toluene	15.59	261402	114.936	ug/L
4)	Ethylbenzene	17.97	93662	38.271	ug/L
5)	m,p-Xylene	18.07	407837	159.311	ug/L
6)	o-Xylene	18.68	190969	77.008	ug/L
8)	1,2,4-Trimethylbenzene	20.20	166573	63.559	ug/L
9)	Naphthalene	23.25	51531	59.448	ug/L
10) H	C9- C10 Aromatics (unadjus	20.00	5502342	66.370	ug/L
12)	Pentane	7.21	37004	70.773	ug/L
13)	2-Methylpentane	8.52	60194	109.964	ug/L
14)	Methyl tert butyl ether #2	8.98	33751	124.144	ug/L
15)	2,2,4-Trimethylpentane	11.85	60879	111.329	ug/L
16)	Benzene #2	12.54	47090	40.816	ug/L
17)	Toluene #2	15.59	165358	116.137	ug/L
18)	Nonane	17.56	92820	67.423	ug/L
19)	Ethylbenzene #2	17.97	65173	38.533	ug/L
20)	m,p-Xylene #2	18.07	243695	145.716	ug/L
21)	o-Xylene #2	18.68	135388	78.119	ug/L
23)	1,2,4-Trimethylbenzene #2	20.20	110472	64.670	ug/L
24)	Naphthalene #2	23.25	24914	67.203	ug/L
25) H	C5- C8 Aliphatics (unadjus	15.10	22440830	582.283	ug/L
26) H	C9- C12 Aliphatics (unadju	20.00	22390605	384.715	ug/L

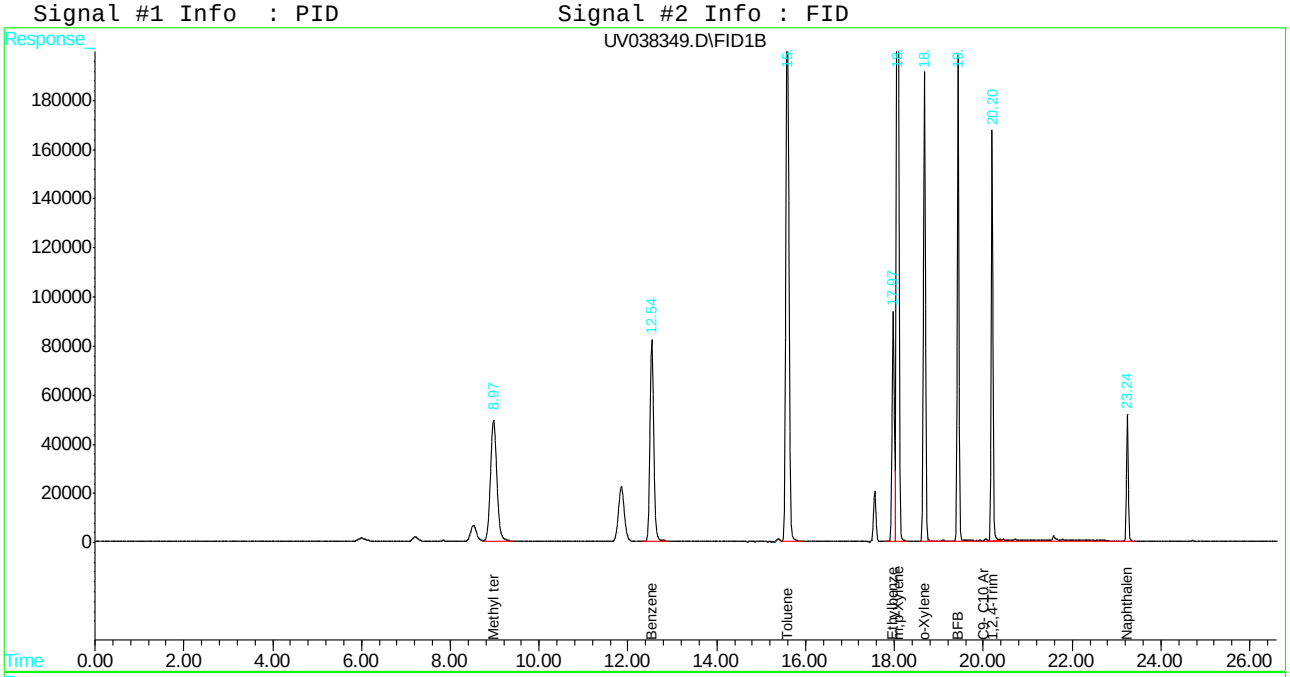
(f)=RT Delta > 1/2 Window (m)=manual int.
UV038349.D MAVPHUV.M Mon Mar 08 11:46:21 2010

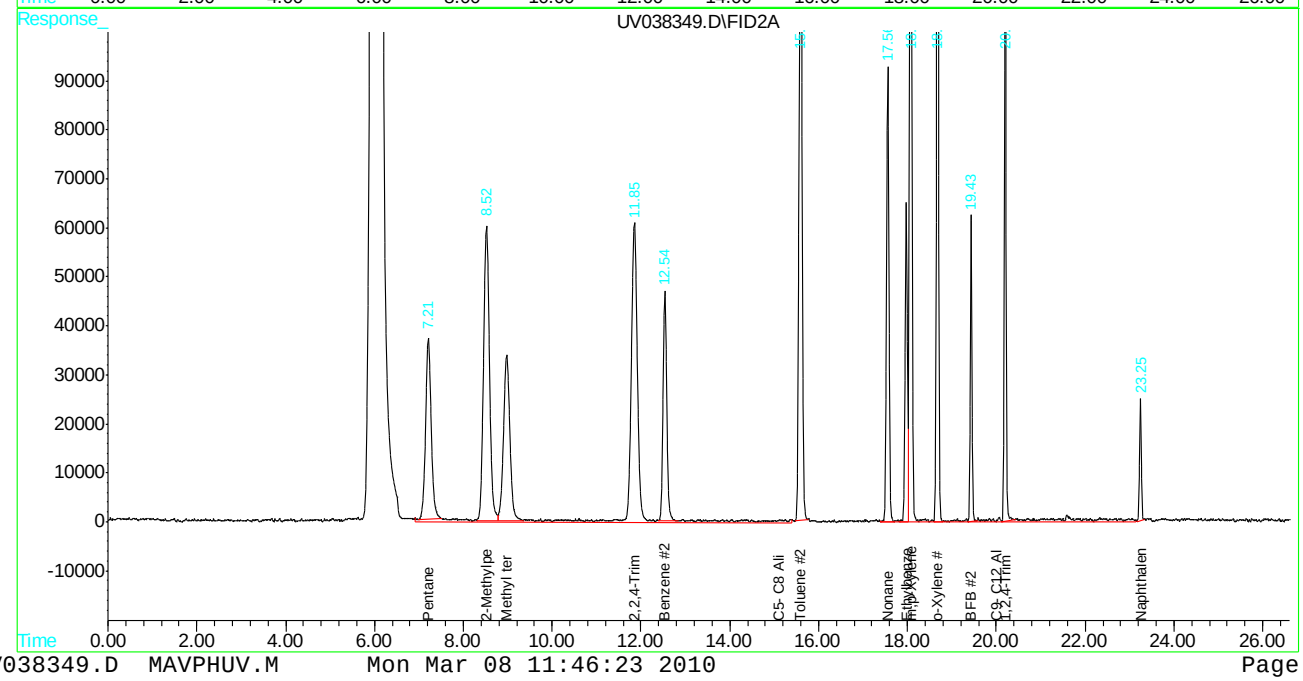
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\2\DATA\030510\UV038349.D\FID1B.CH Vial: 30
Signal #2 : C:\HPCHEM\2\DATA\030510\UV038349.D\FID2A.CH
Acq On : 6 Mar 2010 1:21 am Operator: ArielH
Sample : ecc2172-3 Inst : VOA4
Misc : gc10702,guv2201,5.00,,100,5.1,,soil Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E
Quant Time: Mar 8 8:56 2010 Quant Results File: MAVPHUV.RES

Quant Method : C:\HPCHEM\2\METHODS\MAVPHUV.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Feb 05 13:37:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : MAVPHUV.M

Volume Inj. :
Signal #1 Phase : RTX-502.2 Signal #2 Phase: RTX-502.2
Signal #1 Info : PID Signal #2 Info : FID





ACCUTEST LABORATORIES SE

DATE:	02/04/10
COLUMN TYPE:	RTX502.2
DETECTOR:	PID/FID
PURGE PRESSURE:	10 PSI
METHANOL LOT #:	H45E36
ANALYST:	Ariel H.

GC VOA4-UV ANALYSIS LOG

METHODS:	MAVPH
METHOD FILE:	MAVPHW.M
CALIB. DATE:	02/04/10
INSTRUMENT:	GCVOA4-UV
RUN ID:	GUV 2172

STANDARDS

Window Defining	/
ICAL/CCV	V10193
ISTD/SURR	V10213 New mix
ICV/QC	V10159
SIGNAL 1 SURR. AREA:	10982135
SIGNAL 2 SURR. AREA:	35198367

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	SAMPLE AMT.	MeOH Aliq.	ALS POSITION	ANALYTICAL METHOD	PH	CI ?	RR	COMMENTS GC10598/10601
UV 037857	CC2143-X3	.	W	5ml	NA	9	MAVPH	-	-	RR	PASSED 10µl → 5mL
UV 58	BS	.				10		-	-		✓ 20µl → 5mL
UV 59	MB	.				11		-	-		ND ↓ surr sig 1
UV 60	F70922-12	7				12					ND ↓ surr sig 1
UV 61	MB	.				13		-	-		ND ↓ surr sig 1 Recalibrate
UV 62	F70922-12	7				14					ND ↓ surr sig 1
UV 63	IC2172-1	.				15		-	-	N	✓ 12.5µl → 50mL Vol
UV 64	-2	.				16		-	-		✓ 5µl → 5mL
UV 65	-3	.				17		-	-		✓ 10 µl → 5mL
UV 66	ICC2172-4	.				19 18		-	-		✓ 20 µl → 5mL
UV 67	-5	.				20 19		-	-		✓ 35 µl → 5mL
UV 68	-6	.				21		-	-		✓ 50 µl → 5mL
UV 69	ICV2172-4	.				22		-	-		PASSED 20 µl → 5mL
UV 70	BS	.				23		-	-		✓ 20 µl → 5mL
UV 71	MB	.				24		-	-		ND
UV 72	F70922-12	7				25		1	N		ND
UV 73	16	7				26		1	N		ND
UV 74	17	7				27		1	N		ND
UV 75	18	7				28		1	N		ND
UV * 76	19	7				29		1	N	RR	ND Surr ↓ (Tube leaked/broke)
UV 77	20	7				30		1	N	N	ND
UV 78	21	7				31		1	N		ND
UV 79	CC2172-X4	.				1		-	-		PASSED 20µl → 5mL
UV 80	CCB	-				2		-	-		ND
UV 81	12DLP	7				3		1	N		ND
UV 82	16MS	7				4		1	N		✓
UV 83	16MSD	7				5		1	N		✓

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

Analyst's Signature: Ariel H. [illegible]

GCVOA4_UV_log.xls NF 11/06

ACCUTEST LABORATORIES SE

DATE:	02/04/10
COLUMN TYPE:	BTX5022
DETECTOR:	PID/FID
PURGE PRESSURE:	10PSI
METHANOL LOT #:	H45E36
ANALYST:	Ariel H.

GC VOA4-UV ANALYSIS LOG

METHODS:	MAVPH
METHOD FILE:	MAVPHUV.M
CALIB. DATE:	02/04/10
INSTRUMENT:	GCVOA4-UV
RUN ID:	GUV 2172

STANDARDS

Window Defining	/
ICAL/CCV	V 10193
ISTD/SURR	V ~~10202~~ 10213 AH 02/04/10
ICV/QC	V 10159
SIGNAL 1 SURR. AREA:	10982135
SIGNAL 2 SURR. AREA:	3518362

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	SAMPLE AMT.	MeOH Aliq.	ALS POSITION	ANALYTICAL METHOD	PH	CI ?	RR	COMMENTS
UV 84	F71044.1	5	W	5ml	N/A	6	MAVPH	1	N	N	✓ CS-CS
UV 85	ECC2177.3	↓	↓	↓	↓	7	↓	-	-	↓	PASSED 10µl→5mL
UV 86	ECB	↓	↓	↓	↓	8	↓	-	-	↓	ND
UV											
UV											
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AH 02/04/10

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

Analyst's Signature: Ariel Hartman

GCVOA4_UV_log.xls NF 11/06

ACCUTEST LABORATORIES SE

DATE	03/05/10
COLUMN TYPE:	RTX5022
DETECTOR:	PID/FID
PURGE PRESSURE:	10 PSI
METHANOL LOT #:	HY5E31
ANALYST:	Ariel H.

GC VOA4-UV ANALYSIS LOG

METHODS:	MAPH
METHOD FILE:	MAPHW.M
CALIB. DATE:	02/04/10
INSTRUMENT:	GCVOA4-UV
RUN ID:	GUV 2201

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STANDARDS

Window Defining	/
ICAL/CCV	V 10282
ISTD/SURR	V 10293
ICV/QC	V 10265
SIGNAL 1 SURR. AREA:	10325884
SIGNAL 2 SURR. AREA:	32746666

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	SAMPLE AMT.	MeOH Aliq.	ALS POSITION	ANALYTICAL METHOD	PH	CI ?	RR	COMMENTS
											GC10702
UV 038320	CC2172.4		S	5.00	100	1	MAPH	N/A	N/A	N	PASSED 20µl → 5ml
UV 21	BS					2					✓ 20µl → 5ml
UV 22	MB					3					ND
UV 23	F71742.2	J2230		4.36		4					ND
UV 24	3	J2138		4.49		5					ND
UV 25	4	41		4.82		6					ND
UV 26	5	J2233		3.72		7					ND
UV 27	6	J2147		5.88		8					ND
UV 28	F71731.1	J2052 28	AH 03/05/10	~~5.52~~	641	9					ND
UV 29	2	31	AH 03/05/10	6.13		10					ND
UV 30	3	34		6.03		11					ND AH 03/05/10
UV 31	CC2172.3			5.00		12					PASSED ~~PASSED~~ 10µl → 5ml
UV 32	CCB			5.00		13					ND
UV 33	F71731.4	J2037		6.09		14					ND
UV 34	5	40		5.31		15					ND
UV 35	6	43		5.48		16					ND
UV 36	7	46		6.04		17					ND
UV 37	8	49		5.66		18					ND
UV 38	9	J2052		5.52		19					ND
UV 39	10	55		5.18		20				V	ND
UV 40	F71639.1	J1679		5.46		21				100X	PR @ 100X
UV 41	2	80		5.49		22				50X	PR @ 50X
UV 42	CC2172.3			5.00		23				N	PASSED 10µl → 5ml
UV 43	CCB			5.00		24				↓	ND
UV 44	F71639.3	J1681		5.83		25				50X	✓ PR @ 50X
UV 45	6	J1684		6.44		26				200X	PR @ 200X
UV 46	F71731.5DLP	J2040	✓	5.51		27				N	ND

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

Analyst's Signature: Ariel Hartney

GCVOA4_UV_log.xls NF 11/06

ACCUTEST LABORATORIES SE

DATE:	03/05/10
COLUMN TYPE:	RTX5022
DETECTOR:	PID/FID
PURGE PRESSURE:	10PSI
METHANOL LOT #:	H45E36
ANALYST:	AnnPH.

GC VOA4-UV ANALYSIS LOG

METHODS:	MAVPH
METHOD FILE:	MAVPHW.m
CALIB. DATE:	02/04/10
INSTRUMENT:	GCVOA4-UV
RUN ID:	GUV 2201

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STANDARDS

Window Defining	/
ICAL/CCV	V10282
ISTD/SURR	V10293
ICV/QC	V10265
SIGNAL 1 SURR. AREA:	10325884
SIGNAL 2 SURR. AREA:	32746666

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	SAMPLE AMT.	MeOH Aliq.	ALS POSITION	ANALYTICAL METHOD	PH	CI ?	RR	COMMENTS
											GC107102
UV 038345	F71731-5MS	J2040	S	5.51	100	28	MAVPH	NA	NA	N	✓ 20µl → 5ml
UV 48	-5MSD	J2040	↓	5.51	↓	29	↓	↓	↓	↓	✓ 20µl → 5ml
UV 49	ECC21172-3	-	↓	5.00	↓	30	↓	↓	↓	↓	PASSED 10µl → 5ml
UV 50	ECB	-	↓	5.00	↓	31	↓	↓	↓	↓	ND
UV											
UV											
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Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

Analyst's Signature: [signature]

GCVOA4_UV_log.xls NF 11/06

5035A SOIL PREP LOG

Serial #	Sample #	Vial Type or Vial Lot #	Tare Wt gram	Total Wt gram	Sample Wt gram	Date	Time	Initials	Container Type *	Comments
J1665	F71621-14	W	31.71	38.29	6.58	2/25/10	14:52	CL	PT	IN
66	14	M	30.08	34.76	4.68					
67	15	W	31.65	39.78	8.13					
68	15	W	31.84	39.46	7.62					
69	15	M	30.23	36.91	6.68					
70	16	W	31.49	39.77	8.28					
71	16	W	31.78	39.33	7.55					
72	16	M	29.97	37.30	7.33					
73	17	W	31.25	40.26	9.01					
74	17	W	31.08	39.27	8.19					
75	17	M	29.96	37.99	8.03					
76	18	W	—		5.00				TB	
77	18	W	—		5.00					
78	18	M	—		5.00		14:59	CL		
79	F71639-1	M AC15588	—		5.46	2/26/10	9:26	SH	EN	IN 1 ENCORE ONLY
80	2	M	—		5.49					
81	3	M	—		5.83					
82	4	M	—		5.34					
83	5	M	—		6.12					
84	6	M	—		6.44					
85	7	M	—		5.53		9:45			
86	F71639-*5	W	31.17	37.76	6.59	2-26-10	11:00	NJ	IH	I.H FROZEN 2-26-10 9:26
87	*5	W	31.15	37.79	6.64				PT	

RUN SH 4/26/10

Container Type: **PT** for pre-tared vials (field kits): **EN** for Encore or similar type: **5030A** for samples collected in jars or bulk containers: **SL** for core sleeve

Comment: **N/O** for no odor: **S/O** for slight odor: **OOH** for Out of Hold

Encore Comment: **C** for sampler incorrectly capped: **P** for plunger not locked: **F** for sampler not completely filled

5035 Soil Prep Log.xls NF rev 05/06

Serial #	Sample #	Vial Type or Vial Lot #	Tare Wt gram	Total Wt gram	Sample Wt gram	Date	Time	Initials	Container Type *	Comments
J 2009	F 71762 . 2	m AC1588	—		4.44	03/03/10	10:05	AH	5030A	OOH
10	3	m	—		4.92	↓	10:08	↓	↓	↓
J-2011	F-~~13~~ 71730.1	W	30.74	37.17	6.43	3-3-10	10:30	NJ	P.T	I.H
12	F-71730-1	W	30.37	36.80	6.43					
13	-1	m	29.58	36.62	7.04					
14	-2	W	30.77	37.05	6.28					
15	-2	W	30.81	37.13	6.32					
16	-2	m	30.05	35.74	5.69					
17	-3	W	30.77	36.74	5.97					
18	-3	W	30.74	37.36	6.62					
19	-3	m	29.66	35.75	6.09					
20	-4	W	30.90	36.23	5.33					
21	-4	W	30.84	35.77	4.93					
22	-4	m	30.12	35.51	5.39					
23	-5	W	-	-	5.00				T.B	
24	-5	W								
25	-5	m								I.H
26	F-71731-1	W	31.75	37.82	6.07				PT	
27	-1	W	30.66	37.05	6.39					
28	-1	m	30.05	36.46	6.41					
29	-2	W	31.81	38.09	6.28					
30	-2	W	31.74	37.96	6.25					
31	-2	m	29.96	36.09	6.13	3-3-10	10:52	NJ	PT	I.H

Container Type: **PT** for pre-tared vials (field kits): **EN** for Encore or similar type: **5030A** for samples collected in jars or bulk containers: **SL** for core sleeve

Comment: **N/O** for no odor: **S/O** for slight odor: **OOH** for Out of Hold

Encore Comment: **C** for sampler incorrectly capped: **P** for plunger not locked: **F** for sampler not completely filled

5035 Soil Prep Log.xls NF rev 05/06

5035A SOIL PREP LOG

Serial #	Sample #	Vial Type or Vial Lot #	Tare Wt gram	Total Wt gram	Sample Wt gram	Date	Time	Initials	Container Type *	Comments
F-2032	F-71731-3	W	31.70	37.70	6.00	3-3-10	10:54	NJ	PT	I.H
33	-3	W	31.16	37.30	6.14					
34	-3	m	30.06	36.09	6.03					
35	-4	W	31.18	37.02	5.84					
36	-4	W	31.76	37.71	5.95					
37	-4	m	29.58	35.67	6.09					
38	-5	W	31.65	37.74	6.09					
39	-5	W	31.67	37.29	5.62					
40	-5	m	30.05	35.56	5.51					
41	-6	W	31.07	37.30	6.23					
42	-6	W	31.23	36.79	5.56					
43	-6	m	29.63	35.11	5.48					
44	-7	W	31.67	37.27	5.60					
45	-7	W	31.13	36.88	5.75					
46	-7	m	30.24	36.28	6.04					
47	-8	W	31.80	37.96	6.16					
48	-8	W	31.69	37.86	6.17					
49	-8	m	30.08	35.74	5.66					
50	-9	W	31.74	37.26	5.52					
51	-9	W	31.73	37.38	5.65					
52	-9	m	30.16	35.68	5.52					
53	-10	W	31.67	37.07	5.40					
54	-10	W	31.68	37.17	5.49	3-3-10	11:21	NJ	PT	I.H

Container Type: **PT** for pre-tared vials (field kits): **EN** for Encore or similar type: **5030A** for samples collected in jars or bulk containers: **SL** for core sleeve

Comment: **N/O** for no odor: **S/O** for slight odor: **OOH** for Out of Hold

Encore Comment: **C** for sampler incorrectly capped: **P** for plunger not locked: **F** for sampler not completely filled

5035 Soil Prep Log.xls NF rev 05/06

Serial #	Sample #	Vial Type or Vial Lot #	Tare Wt gram	Total Wt gram	Sample Wt gram	Date	Time	Initials	Container Type *	Comments
J-2055	F-71731-10	m	30.21	35.39	5.18	3-3-10	11:21	Nj	PT	I.H
56	F-71732-1	W	31.65	35.48	3.83					
57	-1	W	31.06	34.90	3.84					
58	-1	m	30.24	34.12	3.88					
59	2	W	31.68	35.75	4.07					
60	2	W	31.20	35.43	4.23					
61	2	m	30.17	34.06	3.89					
62	3	W	31.63	35.39	3.76					
63	3	W	31.58	35.54	3.96					
64	3	m	30.04	34.04	4.00					
65	4	W	31.08	34.96	3.88					
66	4	W	31.73	35.91	4.18					
67	4	m	30.14	33.85	3.71					
68	5	W	31.77	36.11	4.34					
69	5	W	31.56	34.58	3.02					
70	5	m	30.09	34.57	4.48					
71	6	W ~~m~~	-	~~5.00~~	5.00				T.B	
72	6	W	-	-	↓				|	
73	6	m	-	-					PT	
74	F-71734-7	W	34.37	38.11	3.74				|	
75	7	W	34.31	36.69	2.38					
76	7	m	32.67	33.97	1.30		11:35			
77	8	W	34.61	38.61	4.00	3-3-10	11:35 ~~11:50~~ NJ 3-3	Nj	PT	I.H

Container Type: PT for pre-tared vials (field kits): EN for Encore or similar type: 5030A for samples collected in jars or bulk containers: SL for core sleeve

Encore Comment: C for sampler incorrectly capped: P for plunger not locked: F for sampler not completely filled

Comment: N/O for no odor: S/O for slight odor: OOH for Out of Hold

5035 Soil Prep Log.xls NF rev 05/06

5035A SOIL PREP LOG

Serial #	Sample #	Vial Type or Vial Lot #	Tare Wt gram	Total Wt gram	Sample Wt gram	Date	Time	Initials	Container Type *	Comments
J-2124	F-71753-14	W	31.60	36.21	4.61	3-3-10	13:46	NJ	PT	O.O.H N
25	14	m	29.97	34.74	4.77					I.N
26	6	W	31.55	41.43	9.88					
27	6	W	31.43	45.91	14.48					
28	6	m	30.18	39.06	8.88					
29	5	W	31.54	38.59	7.05					
30	5	W	31.48	41.37	9.89					
31	5	m	30.03	37.57	7.54		13:58			I.H
32	F-71742-1	m	29.56	34.15	4.59		15:30			I.H
33	2	W	31.58	36.76	5.18					$NaHSO_4$
34	2	W	31.63	35.73	4.10					↓
35	2	m	30.11	34.82	4.71					-
36	3	W	31.73	36.45	4.72					$NaHSO_4$
37	3	W	31.59	36.73	5.14					↓
38	3	m	29.59	34.08	4.49					-
39	4	W	31.65	37.02	5.37					$NaHSO_4$
40	4	W	31.29	36.24	4.95					↓
41	4	m	29.62	34.44	4.82					-
42	5	W	31.36	37.44	6.08					$NaHSO_4$
43	5	W	31.61	36.75	5.14					↓
44	5	m	30.12	35.46	5.34					-
45	6	W	31.55	37.03	5.48					$NaHSO_4$
46	6	W	31.58	37.68	6.10	3-3-10	16:00	NJ	PT	↓

I.H

Container Type: PT for pre-tared vials (field kits): EN for Encore or similar type: 5030A for samples collected in jars or bulk containers: SL for core sleeve
Comment: N/O for no odor: S/O for slight odor: OOH for Out of Hold
Encore Comment: C for sampler incorrectly capped: P for plunger not locked: F for sampler not completely filled

5035 Soil Prep Log.xls NF rev 05/06

5035A SOIL PREP LOG

Serial #	Sample #	Vial Type or Vial Lot #	Tare Wt gram	Total Wt gram	Sample Wt gram	Date	Time	Initials	Container Type *	Comments
~~J-2147~~										
~~J-2147~~	F-71742-6	m	29.87	35.75	5.88	3-3-10	16:30	NJ	PT	
48 ~~48~~	-7	w	–	–	5.00				T.B	
49 ~~49~~	-7	w	|	|	|				|	
50 ~~50~~	-7	m								
51 ~~51~~	F-71751-3	w	–	–	5.53				PT 5030A/IH	PT's have
52 ~~52~~	-3	w	–	–	5.50				5030A	IH have wt
53 ~~53~~	-3	m		–	6.22				↓	IH covered
54 ~~54~~	-4	w	31.32	35.69	4.37				PT	by labels
55 ~~55~~	-4	w	31.42	36.13	4.71				↓	↓
56 ~~56~~	-4	m	29.58	34.89	5.31				↓	I.H
~~57~~	F-71750-3	w	31.61	37.10	5.49				↓	
58 ~~58~~	-3	~~w~~ m	29.96	33.76	3.80				↓	
59 ~~59~~	-3	~~m~~ w	31.63	37.19	5.56				T.B	
60 ~~60~~	-4	w	–	–	5.00				|	
61 ~~61~~	-4	w	–	–	|				|	
62 ~~62~~	-4	m	–	–						
63 ~~63~~	-5	w								
64 ~~64~~	-5	w								
65 ~~65~~	-5	m								
66 ~~66~~	F-71752-3	w	31.63	37.19	5.56	3/3/10			PT	I.H
67 ~~67~~	3	w	31.61	37.10	5.49				|	|
68 ~~68~~	3	m	29.96	33.76	3.80					
69 ~~69~~	4	w	–	–	5.00	3-3-10	17:00	NJ	T.B	

NJ 3-3

NO Y Odor

NJ 3-3-10

Tare Wt is wrong

Container Type: PT for pre-tared vials (field kits): EN for Encore or similar type: 5030A for samples collected in jars or bulk containers: SL for core sleeve

Encore Comment: C for sampler incorrectly capped: P for plunger not locked: F for sampler not completely filled

Comment: N/O for no odor: S/O for slight odor: OOH for Out of Hold

5035 Soil Prep Log.xls NF rev 05/06

Serial #	Sample #	Vial Type or Vial Lot #	Tare Wt gram	Total Wt gram	Sample Wt gram	Date	Time	Initials	Container Type *	Comments
52216	F71750-3	w	31.25	34.25	3.00	3-4-10	10:27	CL	PT	frozen in
17	3	w	30.71	33.52	2.81					3-3-10 17:00
18	3	m	30.06	33.30	3.24					
19	4	w	30.75	36.89	6.14					
20	4	w	30.75	36.87	6.12					
21	4	m	29.75	34.76	5.01					
22	5	w								leaked
23	5	w	31.15	37.33	6.18					
24	5	m	30.03	35.97	5.94					
25	5	w AC1619			4.60				5030A	in
26	F71751-3	w	31.53	36.33	4.80				PT	frozen in
27	3	w	31.41	36.46	5.05					3-3-10 17:00
28	3	m	29.88	35.24	5.36					
29	F71742-1	m	30.12	35.66	5.54				PT	in ~~A.W.~~
30	2	m	29.50	33.86	4.36					
31	3	m	29.79	32.67	2.88					
32	4	m	29.53	35.13	5.60					
33	5	m	29.73	33.45	3.72					
34	6	m	29.66	34.58	4.92					
35	F71764-1	w			6.05				en	
36	1	w			6.28					
37	1	m AC1588			6.27					
38	2	w			5.84		11:15	CL		

AW

A.W.

AW.

Container Type: PT for pre-tared vials (field kits): EN for Encore or similar type: 5030A for samples collected in jars or bulk containers: SL for core sleeve

Comment: N/O for no odor: S/O for slight odor: OOH for Out of Hold

Encore Comment: C for sampler incorrectly capped: P for plunger not locked: F for sampler not completely filled

5035 Soil Prep Log.xls NF rev 05/06

Instrument Run Log GUV2201 page 9 of 9
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ACCUTEST Laboratories
F71731
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6.7.2

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Sample: F71731-1 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS006-0.5-030110

Wet Weight (Total)	7.19	g
Tare Weight	.98	g
Dry Weight (Total)	6.19	g
Solids, Percent	83.9	%

Sample: F71731-2 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SB006-04-030110

Wet Weight (Total)	7.01	g
Tare Weight	.99	g
Dry Weight (Total)	6.67	g
Solids, Percent	94.4	%

Sample: F71731-3 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS008-0.5-030110

Wet Weight (Total)	7.48	g
Tare Weight	.97	g
Dry Weight (Total)	7.11	g
Solids, Percent	94.3	%

Sample: F71731-4 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS008-04-030110

Wet Weight (Total)	7.93	g
Tare Weight	.99	g
Dry Weight (Total)	7.43	g
Solids, Percent	92.8	%

Sample: F71731-5 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS010-0.5-030110

Wet Weight (Total)	6.98	g
Tare Weight	.95	g
Dry Weight (Total)	6.62	g
Solids, Percent	94	%

Sample: F71731-6 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS010-04-030110

Wet Weight (Total)	6.67	g
Tare Weight	.99	g
Dry Weight (Total)	6.44	g
Solids, Percent	96	%

Percent Solids Raw Data Summary

Job Number: F71731
Account: ELTNN Empirical Labs
Project: NAS Mayport

Sample: F71731-7 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS002-0.5-030110

Wet Weight (Total)	7.21	g
Tare Weight	1.02	g
Dry Weight (Total)	6.88	g
Solids, Percent	94.7	%

Sample: F71731-8 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS002-04-030110

Wet Weight (Total)	7.45	g
Tare Weight	1	g
Dry Weight (Total)	6.89	g
Solids, Percent	91.3	%

Sample: F71731-9 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS001-0.5-030110

Wet Weight (Total)	6.66	g
Tare Weight	.97	g
Dry Weight (Total)	6.04	g
Solids, Percent	89.1	%

Sample: F71731-10 **Analyzed:** 05-MAR-10 by LE **Method:** SM19 2540B M
ClientID: MPT-AOCE-SS001-04-030110

Wet Weight (Total)	6.81	g
Tare Weight	.97	g
Dry Weight (Total)	6.43	g
Solids, Percent	93.5	%

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

Accutest Southeast Subcontract Chain of Custody

ACCUTEST Laboratories

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707

PAGE 1 OF 1

F71731

Client / Reporting Information

Company Name: Accutest Laboratories Southeast
Address: 4405 Vineland Road Suite C-15
City: Orlando State: Fl Zip: 32811
Project Contact: E-mail
Phone#: 407-425-6700 Fax #: 407-425-0707
Lab Technician Printed Name:

Project Information

Accutest Job Number: F71731
Street
City
Project #
Fax #
Client Purchase Order #

Please send report to dawnd@accutest.com

For any other issues contact munam@accutest.com

Analytical Information

BMA EPH2

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

Lab ID #	Client ID / Accutest Sample ID	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaSO4/NaOH	ZnAcetate	MeOH	BMA EPH2	LAB USE ONLY
	F71731-1				So	1		X								X	
	-2					1		X								X	
	-3					1		X								X	
	-4					1		X								X	
	-5					1		X								X	
	-6					1		X								X	
	-7					1		X								X	
	-8					1		X								X	
	-9					1		X								X	
	-10					1		X								X	
	-5D					1		X								X	
	-5S					1		X								X	

TURNAROUND TIME (Business Days)

Approved By: 03/17/10

- Standard 10 Business Days
- 7 Day *RUSH*
- 5 Day *RUSH*
- 3 Day *EMERGENCY*
- 2 Day *EMERGENCY*
- 1 Day *EMERGENCY*
- OTHER

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Ship to Laboratory-

Approved By-

10A

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished by/Affiliation	Date Time:	Received By/Affiliation
1	3/4/10 1700	2 Fed Ex	3 Fed Ex	3/5/10 10:15	4
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 1-3

8.1

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F71731: Chain of Custody
Page 1 of 2
Accutest Labs of New England, Inc.

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: F71731 **Client:** ALSE **Immediate Client Services Action Required:** No

Date / Time Received: 3/5/2010 10:15:00 AM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: N/A **Airbill #'s:** N/A

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	
2. Trip Blank listed on COC:	☐		☐	
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume rec'd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

F71731: Chain of Custody
Page 2 of 2

GC Semi-volatiles

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20804-MB	BC37589.D	1	03/11/10	KD	03/08/10	OP20804	GBC1913

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

F71731-1, F71731-2, F71731-3, F71731-4, F71731-5, F71731-6, F71731-7, F71731-8, F71731-9, F71731-10

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	18000	18000	ug/kg	
	C9-C18 Aliphatics	ND	8800	8800	ug/kg	
	C19-C36 Aliphatics	ND	8800	8800	ug/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	77%	40-140%
321-60-8	2-Fluorobiphenyl	80%	40-140%
580-13-2	2-Bromonaphthalene	81%	40-140%
3386-33-2	1-Chlorooctadecane	44%	40-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20804-BS	BC37617.D	1	03/11/10	KD	03/08/10	OP20804	GBC1915
OP20804-BSD	BC37618.D	1	03/11/10	KD	03/08/10	OP20804	GBC1915

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

F71731-1, F71731-2, F71731-3, F71731-4, F71731-5, F71731-6, F71731-7, F71731-8, F71731-9, F71731-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	69900	64000	92	65600	92	2	40-140/25
	C9-C18 Aliphatics	26200	18000	69	18900	71	5	40-140/25
	C19-C36 Aliphatics	34900	30500	87	32400	91	6	40-140/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	81%	77%	40-140%
321-60-8	2-Fluorobiphenyl	80%	78%	40-140%
580-13-2	2-Bromonaphthalene	72%	81%	40-140%
3386-33-2	1-Chlorooctadecane	62%	50%	40-140%

Sample	Compound	Col #1	Col #2	Breakthrough	Limit
OP20804-BS	2-Methylnaphthalene	2790	31.3	1.1%	5.0
OP20804-BS	Naphthalene	2690	72.9	2.6%	5.0
OP20804-BSD	2-Methylnaphthalene	2840	2.3	0.1%	5.0
OP20804-BSD	Naphthalene	2760	8.4	0.3%	5.0

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20804-MS	BC37679A.D	1	03/16/10	KD	03/08/10	OP20804	GBC1917
OP20804-MSD	BC37620.D	1	03/11/10	KD	03/08/10	OP20804	GBC1915
F71731-5	BC37595.D	1	03/11/10	KD	03/08/10	OP20804	GBC1913

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

F71731-1, F71731-2, F71731-3, F71731-4, F71731-5, F71731-6, F71731-7, F71731-8, F71731-9, F71731-10

CAS No.	Compound	F71731-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	19000	U	76000	75500	99	67600	89	11	40-140/25
	C9-C18 Aliphatics	9300	U	28500	23300	82	22800	80	2	40-140/25
	C19-C36 Aliphatics	14400		38000	46800	85	48100	88	3	40-140/25

CAS No.	Surrogate Recoveries	MS	MSD	F71731-5	Limits
84-15-1	o-Terphenyl	83%	75%	58%	40-140%
321-60-8	2-Fluorobiphenyl	81%	69%	70%	40-140%
580-13-2	2-Bromonaphthalene	79%	72%	70%	40-140%
3386-33-2	1-Chlorooctadecane	62%	50%	50%	40-140%

Semivolatile Surrogate Recovery Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Method: MADEP EPH REV 1.1 **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]	S3 [a]	S4 [b]
F71731-1	BC37688.D	75.0	79.0	71.0	59.0
F71731-2	BC37689.D	75.0	78.0	73.0	58.0
F71731-3	BC37690.D	74.0	72.0	67.0	63.0
F71731-4	BC37711.D	69.0	75.0	57.0	60.0
F71731-5	BC37595.D	58.0	70.0	70.0	50.0
F71731-6	BC37692.D	70.0	79.0	74.0	54.0
F71731-7	BC37693.D	75.0	79.0	66.0	62.0
F71731-8	BC37694.D	73.0	78.0	72.0	62.0
F71731-9	BC37695.D	42.0	78.0	70.0	36.0* [c]
F71731-10	BC37697.D	83.0	83.0	73.0	70.0
OP20804-BS	BC37617.D	81.0	80.0	72.0	62.0
OP20804-BSD	BC37618.D	77.0	78.0	81.0	50.0
OP20804-MB	BC37589.D	77.0	80.0	81.0	44.0
OP20804-MS	BC37679A.D	83.0	81.0	79.0	62.0
OP20804-MSD	BC37620.D	75.0	69.0	72.0	50.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	40-140%
S2 = 2-Fluorobiphenyl	40-140%
S3 = 2-Bromonaphthalene	40-140%
S4 = 1-Chlorooctadecane	40-140%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Outside control limits due to possible matrix interference. Confirmed by refractionation.

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Check Std:	GBC1913-CC1911	**Injection Date:**	03/10/10
Lab File ID:	BC37582.D	**Injection Time:**	21:21
Instrument ID:	GCBC	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
Check Std	14.23	9.37	10.46	15.80

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
OP20787-MS	BC37583.D	03/10/10	22:00	14.22	9.36	10.45	15.79
OP20787-MSD	BC37584.D	03/10/10	22:40	14.22	9.36	10.45	15.79
M89685-4	BC37585.D	03/10/10	23:19	14.22	9.36	10.45	15.79
ZZZZZZ	BC37586.D	03/10/10	23:59	14.22	9.36	10.45	15.79
ZZZZZZ	BC37587.D	03/11/10	00:38	14.22	9.36	10.45	15.79
OP20804-MB	BC37589.D	03/11/10	01:57	14.22	9.36	10.45	15.79

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 2-Bromonaphthalene
S4 = 1-Chlorooctadecane

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Check Std:	GBC1913-CC1911	**Injection Date:**	03/11/10
Lab File ID:	BC37593.D	**Injection Time:**	04:35
Instrument ID:	GCBC	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
Check Std	14.23	9.37	10.46	15.80

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
F71731-5	BC37595.D	03/11/10	05:54	14.22	9.36	10.45	15.79
ZZZZZZ	BC37596.D	03/11/10	06:33	14.22	9.36	10.45	15.79
ZZZZZZ	BC37597.D	03/11/10	07:13	14.22	9.36	10.45	15.79
ZZZZZZ	BC37598.D	03/11/10	07:52	14.22	9.36	10.45	15.79
ZZZZZZ	BC37599.D	03/11/10	08:31	14.21	9.36	10.45	15.79

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 2-Bromonaphthalene
S4 = 1-Chlorooctadecane

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Check Std:	GBC1915-ICC1915	**Injection Date:**	03/11/10
Lab File ID:	BC37606.D	**Injection Time:**	13:35
Instrument ID:	GCBC	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
Check Std	14.23	9.37	10.46	15.80

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
OP20829-MB	BC37612.D	03/11/10	17:32	14.22	9.36	10.45	15.79
OP20829-BS	BC37613.D	03/11/10	18:11	14.22	9.36	10.45	15.79
OP20829-BSD	BC37614.D	03/11/10	18:51	14.22	9.36	10.45	15.79
ZZZZZZ	BC37615.D	03/11/10	19:30	14.21	9.36	10.45	15.79
ZZZZZZ	BC37616.D	03/11/10	20:10	14.22	9.36	10.45	15.79
OP20804-BS	BC37617.D	03/11/10	20:49	14.21	9.36	10.45	15.79
OP20804-BSD	BC37618.D	03/11/10	21:29	14.22	9.36	10.45	15.79
OP20804-MSD	BC37620.D	03/11/10	22:47	14.22	9.36	10.45	15.79
ZZZZZZ	BC37621.D	03/11/10	23:27	14.21	9.36	10.45	15.79

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 2-Bromonaphthalene
S4 = 1-Chlorooctadecane

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Check Std:	GBC1917-CC1915	**Injection Date:**	03/16/10
Lab File ID:	BC37675A.D	**Injection Time:**	08:22
Instrument ID:	GCBC	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
Check Std	14.23	9.37	10.46	15.80

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
ZZZZZZ	BC37676.D	03/16/10	09:02	14.22	9.36	10.45	15.79
ZZZZZZ	BC37677.D	03/16/10	09:41	14.22	9.36	10.45	15.79
ZZZZZZ	BC37678.D	03/16/10	10:20	14.22	9.36	10.45	15.79
OP20804-MS	BC37679A.D	03/16/10	11:39	14.22	9.36	10.45	15.79
OP20865-MB	BC37680.D	03/16/10	12:19	14.22	9.36	10.45	15.79
OP20865-BS	BC37681.D	03/16/10	12:58	14.22	9.36	10.45	15.79
OP20865-BSD	BC37682.D	03/16/10	13:38	14.22	9.36	10.45	15.79
ZZZZZZ	BC37683.D	03/16/10	14:18	14.22	9.36	10.45	15.79

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 2-Bromonaphthalene
S4 = 1-Chlorooctadecane

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Check Std:	GBC1917-CC1915	**Injection Date:**	03/16/10
Lab File ID:	BC37685.D	**Injection Time:**	15:37
Instrument ID:	GCBC	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
Check Std	14.23	9.37	10.46	15.80

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
ZZZZZZ	BC37686.D	03/16/10	16:17	14.22	9.36	10.45	15.79
ZZZZZZ	BC37687.D	03/16/10	16:56	14.22	9.36	10.45	15.79
F71731-1	BC37688.D	03/16/10	17:36	14.22	9.36	10.45	15.80
F71731-2	BC37689.D	03/16/10	18:15	14.22	9.36	10.45	15.79
F71731-3	BC37690.D	03/16/10	18:55	14.22	9.36	10.45	15.79
F71731-6	BC37692.D	03/16/10	20:29	14.22	9.36	10.45	15.79
F71731-7	BC37693.D	03/16/10	21:09	14.22	9.36	10.45	15.79
F71731-8	BC37694.D	03/16/10	21:48	14.22	9.36	10.45	15.79
F71731-9	BC37695.D	03/16/10	22:28	14.21	9.36	10.45	15.79

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 2-Bromonaphthalene
S4 = 1-Chlorooctadecane

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Check Std:	GBC1917-CC1915	**Injection Date:**	03/16/10
Lab File ID:	BC37696.D	**Injection Time:**	23:07
Instrument ID:	GCBC	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
Check Std	14.23	9.37	10.46	15.80

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
F71731-10	BC37697.D	03/16/10	23:47	14.22	9.36	10.45	15.79
ZZZZZZ	BC37698.D	03/17/10	00:26	14.22	9.36	10.45	15.79
ZZZZZZ	BC37699.D	03/17/10	01:06	14.22	9.36	10.45	15.79
ZZZZZZ	BC37700.D	03/17/10	01:45	14.22	9.36	10.45	15.79
ZZZZZZ	BC37701.D	03/17/10	02:25	14.22	9.36	10.45	15.79
ZZZZZZ	BC37702.D	03/17/10	03:04	14.22	9.36	10.45	15.79
ZZZZZZ	BC37703.D	03/17/10	03:44	14.22	9.36	10.45	15.79
ZZZZZZ	BC37704.D	03/17/10	04:23	14.21	9.36	10.45	15.79
GBC1917-ECC191B	BC37705.D	03/17/10	05:03	14.22	9.37	10.46	15.80

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 2-Bromonaphthalene
S4 = 1-Chlorooctadecane

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Check Std:	GBC1918-CC1915	**Injection Date:**	03/17/10
Lab File ID:	BC37706.D	**Injection Time:**	08:38
Instrument ID:	GCBC	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
Check Std	14.23	9.37	10.46	15.80

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [a] RT	S4 [b] RT
OP20865-MS	BC37707.D	03/17/10	10:11	14.22	9.36	10.45	15.79
OP20865-MSD	BC37708.D	03/17/10	10:50	14.22	9.36	10.45	15.79
M89958-7	BC37709.D	03/17/10	11:30	14.22	9.36	10.45	15.79
F71731-4	BC37711.D	03/17/10	12:49	14.21	9.36	10.45	15.79
ZZZZZZ	BC37713.D	03/17/10	14:08	14.21	9.36	10.45	15.79
ZZZZZZ	BC37714.D	03/17/10	14:47	14.22	9.36	10.45	15.79
ZZZZZZ	BC37715.D	03/17/10	15:27	14.22	9.36	10.45	15.79
ZZZZZZ	BC37716.D	03/17/10	16:06	14.22	9.36	10.45	15.79

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 2-Bromonaphthalene
S4 = 1-Chlorooctadecane

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1911-ICC1911
Lab FileID: BC37515.D

Response Factor Report GCBC

Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration

Calibration Files
1 =BC37513.D 2 =BC37514.D 3 =BC37515.D 4 =BC37516.D
5 =BC37517.D 6 =BC37518.D 7 =BC37519.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1)h c11-c22 aromatics	5.557							5.557 E3	0.00
2) naphthalene	6.552	6.411	6.418	6.130	7.521	6.194	5.539	6.395 E3	9.33
3) 2-methylnaphthale	6.398	6.237	6.218	5.986	7.243	5.697	5.196	6.139 E3	10.32
4)s 2-fluorobiphenyl	5.858	5.723	5.733	5.433	6.548	5.204	4.928	5.632 E3	9.25
5) acenaphthylene	6.483	6.369	6.405	6.126	7.557	6.263	5.702	6.415 E3	8.83
6)s 2-bromonaphthalen	3.946	3.843	3.825	3.626	4.212	3.102	2.385	3.563 E3	17.45
7) acenaphthene	6.712	6.606	6.657	6.447	8.086	6.960	6.730	6.885 E3	8.01
8) fluorene	6.408	6.223	6.189	5.801	6.803	5.250	4.943	5.945 E3	11.06
9) phenanthrene	6.640	6.407	6.398	6.010	7.029	5.289	4.437	6.030 E3	14.73
10) anthracene	6.129	6.169	6.254	5.942	7.038	5.130	4.740	5.915 E3	12.89
11)s o-terphenyl	6.733	6.667	6.759	6.506	8.076	6.889	6.544	6.882 E3	7.88
12) fluoranthene	6.269	6.331	6.422	6.150	7.280	5.514	4.959	6.132 E3	11.94
13) pyrene	6.415	6.544	6.621	6.315	7.474	5.785	5.082	6.319 E3	11.74
14) benzo(a)anthracen	5.465	5.335	5.393	4.980	5.194	3.237	2.161	4.538 E3	28.72

----- Linear regression ----- Coefficient = 0.9999
Response Ratio = -5439.96656 + 5472.11314 *A

15) chrysene	5.823	6.050	6.222	5.936	6.582	5.428	4.923	5.852 E3	9.25
16) benzo(b)fluoranth	5.883	5.728	5.977	5.547	5.908	3.864	2.807	5.102 E3	24.55
17) benzo(k)fluoranth	5.146	5.670	5.999	5.793	6.349	5.024	4.191	5.453 E3	13.26
18) benzo(a)pyrene	5.213	5.624	5.971	5.665	5.987	3.973	3.403	5.119 E3	20.01
19) indeno(1,2,3-cd)p	4.547	4.315	5.257	4.966	4.994	2.941	1.810	4.119 E3	30.90

----- Linear regression ----- Coefficient = 0.9973
Response Ratio = 4560.69240 + 4507.58242 *A

20) dibenzo(ah)anthra	3.560	4.133	4.915	4.620	4.508	2.835	1.689	3.751 E3	30.70

----- Linear regression ----- Coefficient = 0.9880
Response Ratio = 18463.08997 + 3608.41632 *A

21) benzo(ghi)perylen	3.432	4.034	5.311	5.309	5.722	3.929	2.766	4.357 E3	25.41

----- Quadratic regression ----- Coefficient = 0.9962
Response Ratio = 4468.81354 + 5048.41375 *A + -8.29212 *A^2

22)s bht								0.000	-1.00
23)s BHT								0.000	-1.00

Signal #2

25)h c-9	6.781							6.781 E3	0.00
26)h c-10	6.781							6.781 E3	0.00
27) naphthalene #2	7.260	8.206	7.440	7.733	7.321	7.173		7.522 E3	5.15
28) c-12	6.781							6.781 E3	0.00
29) 2-methylnaphthale	6.528	7.398	6.714	6.989	6.595	6.452		6.780 E3	5.26
30) c-14	6.781							6.781 E3	0.00
31) c-16	6.781							6.781 E3	0.00
32) c-18	6.781							6.781 E3	0.00
33) c-19	5.642							5.642 E3	0.00

Initial Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1911-ICC1911
Lab FileID: BC37515.D

```
34)  c-20              5.642                                        5.642 E3   0.00
35)s 1-chlorooctadecan 5.060 5.759 5.027 4.971 3.697 2.670          4.531 E3  24.94
36)  c-22              5.642                                        5.642 E3   0.00
37)  c-24              5.642                                        5.642 E3   0.00
38)  c-26              5.642                                        5.642 E3   0.00
39)  c-28              5.642                                        5.642 E3   0.00
            ----- Linear regression -----  Coefficient =  1.0000
              Response Ratio = 0.00000 + 5642.26000 *A

40)h c-30              5.642                                        5.642 E3   0.00
            ----- Linear regression -----  Coefficient =  1.0000
              Response Ratio = 0.00000 + 5642.26000 *A

41)h c-36              5.642                                        5.642 E3   0.00
            ----- Linear regression -----  Coefficient =  1.0000
              Response Ratio = 0.00000 + 5642.26000 *A

42)s BHT               0.100                                        0.100   0.00
---------------------------------------------------------------------------------
(#) = Out of Range

          EPH030810.M        Tue Mar 09 16:04:33 2010   RPGEN1
```

9.6.1

9

Initial Calibration Verification

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1911-ICV1911
Lab FileID: BC37520.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37520.D\FID1A.CH         Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37520.D\FID2B.CH
Acq On    : 08 Mar 2010  11:19 pm                    Operator: KimD
Sample    : icv1911-50                               Inst    : GCBC
Misc      : op20795,gbc1911,11.18,,,2,,s             Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.395	6.308 E3	1.4	98	0.00
3		2-methylnaphthalene	6.139	6.065 E3	1.2	98	0.00
4	s	2-fluorobiphenyl	5.632	5.865 E3	-4.1	102	0.00
5		acenaphthylene	6.415	6.316 E3	1.5	99	0.00
6	s	2-bromonaphthalene	3.563	3.920 E3	-10.0	102	0.00
7		acenaphthene	6.885	6.602 E3	4.1	99	0.00
8		fluorene	5.945	6.192 E3	-4.2	100	0.00
9		phenanthrene	6.030	6.029 E3	0.0	94	0.00
10		anthracene	5.915	6.279 E3	-6.2	100	0.00
11	s	o-terphenyl	6.882	6.817 E3	0.9	101	0.00
12		fluoranthene	6.132	6.399 E3	-4.4	100	0.00
13		pyrene	6.319	6.457 E3	-2.2	98	0.00
14		benzo(a)anthracene	4.538	6.190 E3	-36.4#	115	0.00
15		chrysene	5.852	6.279 E3	-7.3	101	0.00
16		benzo(b)fluoranthene	5.102	6.201 E3	-21.5	104	0.00
17		benzo(k)fluoranthene	5.453	6.268 E3	-14.9	104	0.00
18		benzo(a)pyrene	5.119	5.937 E3	-16.0	99	0.00
19		indeno(1,2,3-cd)pyrene	4.119	5.192 E3	-26.1#	99	0.00
20		dibenzo(ah)anthracene	3.751	5.081 E3	-35.5#	103	0.00
21		benzo(ghi)perylene	4.357	5.362 E3	-23.1	101	0.00
Signal #2							
25	h	c-9	6.781	6.733 E3	0.7	0#	0.00
26	h	c-10	6.781	6.784 E3	-0.0	0#	0.00
27		naphthalene #2	7.522	7.144 E3	5.0	96	0.00
28		c-12	6.781	6.611 E3	2.5	0#	0.00
29		2-methylnaphthalene #2	6.780	7.104 E3	-4.8	106	0.00
30		c-14	6.781	6.592 E3	2.8	0#	0.00
31		c-16	6.781	6.642 E3	2.0	0#	0.00
32		c-18	6.781	6.749 E3	0.5	0#	0.00
33		c-19	5.642	6.641 E3	-17.7	0#	0.00
34		c-20	5.642	6.645 E3	-17.8	0#	0.00
35	s	1-chlorooctadecane	4.531	5.056 E3	-11.6	101	0.00
36		c-22	5.642	6.774 E3	-20.1	0#	0.00
37		c-24	5.642	6.633 E3	-17.6	0#	0.00
38		c-26	5.642	6.733 E3	-19.3	0#	0.00
39		c-28	5.642	6.434 E3	-14.0	0#	0.00
40	h	c-30	5.642	6.245 E3	-10.7	0#	0.00
41	h	c-36	5.642	3.382 E3	40.1#	0#	0.00

Initial Calibration Verification

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1911-ICV1911
Lab FileID: BC37520.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37520.D\FID1A.CH         Vial: 91
 Signal #2 : C:\MSDCHEM\1\DATA\BC37520.D\FID2B.CH
 Acq On    : 08 Mar 2010  11:19 pm                    Operator: KimD
 Sample    : icv1911-50                               Inst    : GCBC
 Misc      : op20795,gbc1911,11.18,,,2,,s             Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Tue Mar 09 14:12:20 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ----------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     5.557   0.000 E3  100.0#    0# -7.30#
22 s   bht                            0.000   0.000       0.0     0# -17.59#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -17.59#
-----------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37515.D  EPH030810.M       Tue Mar 09 16:03:38 2010   RPGEN1
```

9.6.2

9

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1913-CC1911
Lab FileID: BC37582.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37582.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37582.D\FID2B.CH
Acq On    : 3-10-10 09:21:06 PM                       Operator: KimD
Sample    : cc1911-50                                 Inst    : GCBC
Misc      : op20787,gbc1913,1000,,,2,,                Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	c11-c22 aromatics (Unadj.)	5.557	0.000 E3	100.0#	0#	0.00
2		naphthalene	6.395	6.719 E3	-5.1	105	0.00
3		2-methylnaphthalene	6.139	6.589 E3	-7.3	106	0.00
4	s	2-fluorobiphenyl	5.632	5.870 E3	-4.2	102	0.00
5		acenaphthylene	6.415	6.708 E3	-4.6	105	0.00
6	s	2-bromonaphthalene	3.563	3.947 E3	-10.8	103	0.00
7		acenaphthene	6.885	6.961 E3	-1.1	105	0.00
8		fluorene	5.945	6.652 E3	-11.9	107	0.00
9		phenanthrene	6.030	6.779 E3	-12.4	106	0.00
10		anthracene	5.915	6.677 E3	-12.9	107	0.00
11	s	o-terphenyl	6.882	7.014 E3	-1.9	104	0.00
12		fluoranthene	6.132	6.852 E3	-11.7	107	0.00
13		pyrene	6.319	6.864 E3	-8.6	104	0.00
14		benzo(a)anthracene	4.538	6.365 E3	-40.3#	118	0.00
15		chrysene	5.852	6.847 E3	-17.0	110	0.00
16		benzo(b)fluoranthene	5.102	6.539 E3	-28.2#	109	0.00
17		benzo(k)fluoranthene	5.453	6.516 E3	-19.5	109	0.00
18		benzo(a)pyrene	5.119	6.615 E3	-29.2#	111	0.00
19		indeno(1,2,3-cd)pyrene	4.119	5.766 E3	-40.0#	110	0.00
20		dibenzo(ah)anthracene	3.751	5.784 E3	-54.2#	118	0.00
21		benzo(ghi)perylene	4.357	5.616 E3	-28.9#	106	0.00

Signal #2

25	h	c-9	6.781	6.440 E3	5.0	0#	0.00
26	h	c-10	6.781	6.516 E3	3.9	0#	0.00
27		naphthalene #2	7.522	6.835 E3	9.1	92	0.00
28		c-12	6.781	6.802 E3	-0.3	0#	0.00
29		2-methylnaphthalene #2	6.780	6.615 E3	2.4	99	0.00
30		c-14	6.781	6.335 E3	6.6	0#	0.00
31		c-16	6.781	6.382 E3	5.9	0#	0.00
32		c-18	6.781	6.487 E3	4.3	0#	0.00
33		c-19	5.642	6.436 E3	-14.1	0#	0.00
34		c-20	5.642	6.406 E3	-13.5	0#	0.00
35	s	1-chlorooctadecane	4.531	5.123 E3	-13.1	102	0.00
36		c-22	5.642	6.486 E3	-15.0	0#	0.00
37		c-24	5.642	6.501 E3	-15.2	0#	0.00
38		c-26	5.642	6.400 E3	-13.4	0#	0.00
39		c-28	5.642	6.342 E3	-12.4	0#	0.00
40	h	c-30	5.642	6.246 E3	-10.7	0#	0.00
41	h	c-36	5.642	4.392 E3	22.2	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1913-CC1911
Lab FileID: BC37582.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37582.D\FID1A.CH         Vial: 100
 Signal #2 : C:\MSDCHEM\1\DATA\BC37582.D\FID2B.CH
 Acq On    : 3-10-10 09:21:06 PM                       Operator: KimD
 Sample    : cc1911-50                                 Inst    : GCBC
 Misc      : op20787,gbc1913,1000,,,2,,                Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Tue Mar 09 14:12:20 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ----------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     5.557   0.000 E3  100.0#    0#  0.00
22 s   bht                            0.000   0.000       0.0     0# -17.59#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -17.59#
-----------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37515.D  EPH031010.M       Thu Mar 11 12:46:32 2010   RPGEN1
```

9.6.3

9

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1913-CC1911
Lab FileID: BC37593.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37593.D\FID1A.CH         Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37593.D\FID2B.CH
Acq On    : 3-11-10 04:35:38 AM                      Operator: KimD
Sample    : cc1911-50                                Inst    : GCBC
Misc      : op20804,gbc1913,11.20,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.395	6.538 E3	-2.2	102	0.00
3		2-methylnaphthalene	6.139	6.431 E3	-4.8	103	0.00
4	s	2-fluorobiphenyl	5.632	5.738 E3	-1.9	100	0.00
5		acenaphthylene	6.415	6.556 E3	-2.2	102	0.00
6	s	2-bromonaphthalene	3.563	3.864 E3	-8.4	101	0.00
7		acenaphthene	6.885	6.813 E3	1.0	102	0.00
8		fluorene	5.945	6.503 E3	-9.4	105	0.00
9		phenanthrene	6.030	6.640 E3	-10.1	104	0.00
10		anthracene	5.915	6.539 E3	-10.5	105	0.00
11	s	o-terphenyl	6.882	6.882 E3	0.0	102	0.00
12		fluoranthene	6.132	6.714 E3	-9.5	105	0.00
13		pyrene	6.319	6.724 E3	-6.4	102	0.00
14		benzo(a)anthracene	4.538	6.234 E3	-37.4#	116	0.00
15		chrysene	5.852	6.713 E3	-14.7	108	0.00
16		benzo(b)fluoranthene	5.102	6.309 E3	-23.7	106	0.00
17		benzo(k)fluoranthene	5.453	6.472 E3	-18.7	108	0.00
18		benzo(a)pyrene	5.119	6.477 E3	-26.5#	108	0.00
19		indeno(1,2,3-cd)pyrene	4.119	5.648 E3	-37.1#	107	0.00
20		dibenzo(ah)anthracene	3.751	5.621 E3	-49.9#	114	0.00
21		benzo(ghi)perylene	4.357	5.467 E3	-25.5#	103	0.00

Signal #2

25	h	c-9	6.781	6.435 E3	5.1	0#	0.00
26	h	c-10	6.781	6.520 E3	3.8	0#	0.00
27		naphthalene #2	7.522	6.823 E3	9.3	92	0.00
28		c-12	6.781	6.810 E3	-0.4	0#	0.00
29		2-methylnaphthalene #2	6.780	6.610 E3	2.5	98	0.00
30		c-14	6.781	6.344 E3	6.4	0#	0.00
31		c-16	6.781	6.391 E3	5.8	0#	0.00
32		c-18	6.781	6.490 E3	4.3	0#	0.00
33		c-19	5.642	6.444 E3	-14.2	0#	0.00
34		c-20	5.642	6.412 E3	-13.6	0#	0.00
35	s	1-chlorooctadecane	4.531	5.170 E3	-14.1	103	0.00
36		c-22	5.642	6.496 E3	-15.1	0#	0.00
37		c-24	5.642	6.514 E3	-15.5	0#	0.00
38		c-26	5.642	6.431 E3	-14.0	0#	0.00
39		c-28	5.642	6.227 E3	-10.4	0#	0.00
40	h	c-30	5.642	6.321 E3	-12.0	0#	0.00
41	h	c-36	5.642	4.536 E3	19.6	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1913-CC1911
Lab FileID: BC37593.D

```
        Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37593.D\FID1A.CH         Vial: 95
 Signal #2 : C:\MSDCHEM\1\DATA\BC37593.D\FID2B.CH
 Acq On    : 3-11-10 04:35:38 AM                      Operator: KimD
 Sample    : cc1911-50                                Inst    : GCBC
 Misc      : op20804,gbc1913,11.20,,,2,,              Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Tue Mar 09 14:12:20 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ----------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     5.557   0.000 E3  100.0#    0# -7.30#
22 s   bht                            0.000   0.000       0.0     0# -17.59#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -17.59#
-----------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37515.D  EPH031010.M       Thu Mar 11 14:11:33 2010   RPGEN1
```

9.6.4

9

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1913-ECC1911
Lab FileID: BC37600.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37600.D\FID1A.CH         Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37600.D\FID2B.CH
Acq On    : 3-11-10 09:13:38 AM                       Operator: KimD
Sample    : ecc1911-50                                Inst    : GCBC
Misc      : op20804,gbc1913,11.45,,,2,,               Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.395	6.641 E3	-3.8	103	0.00
3		2-methylnaphthalene	6.139	6.529 E3	-6.4	105	0.00
4	s	2-fluorobiphenyl	5.632	5.821 E3	-3.4	102	0.00
5		acenaphthylene	6.415	6.644 E3	-3.6	104	0.00
6	s	2-bromonaphthalene	3.563	3.921 E3	-10.0	103	0.00
7		acenaphthene	6.885	6.900 E3	-0.2	104	0.00
8		fluorene	5.945	6.593 E3	-10.9	107	0.00
9		phenanthrene	6.030	6.724 E3	-11.5	105	0.00
10		anthracene	5.915	6.622 E3	-12.0	106	0.00
11	s	o-terphenyl	6.882	6.959 E3	-1.1	103	0.00
12		fluoranthene	6.132	6.772 E3	-10.4	105	0.00
13		pyrene	6.319	6.787 E3	-7.4	103	0.00
14		benzo(a)anthracene	4.538	6.280 E3	-38.4#	116	0.00
15		chrysene	5.852	6.737 E3	-15.1	108	0.00
16		benzo(b)fluoranthene	5.102	6.314 E3	-23.8	106	0.00
17		benzo(k)fluoranthene	5.453	6.389 E3	-17.2	106	0.00
18		benzo(a)pyrene	5.119	6.394 E3	-24.9	107	0.00
19		indeno(1,2,3-cd)pyrene	4.119	5.083 E3	-23.4	97	-0.01
20		dibenzo(ah)anthracene	3.751	5.205 E3	-38.8#	106	0.00
21		benzo(ghi)perylene	4.357	4.780 E3	-9.7	90	-0.01

Signal #2

25	h	c-9	6.781	6.490 E3	4.3	0#	0.00
26	h	c-10	6.781	6.589 E3	2.8	0#	0.00
27		naphthalene #2	7.522	6.900 E3	8.3	93	0.00
28		c-12	6.781	6.884 E3	-1.5	0#	0.00
29		2-methylnaphthalene #2	6.780	6.686 E3	1.4	100	0.00
30		c-14	6.781	6.422 E3	5.3	0#	0.00
31		c-16	6.781	6.474 E3	4.5	0#	0.00
32		c-18	6.781	6.572 E3	3.1	0#	0.00
33		c-19	5.642	6.530 E3	-15.7	0#	0.00
34		c-20	5.642	6.497 E3	-15.2	0#	0.00
35	s	1-chlorooctadecane	4.531	5.262 E3	-16.1	105	0.00
36		c-22	5.642	6.576 E3	-16.6	0#	0.00
37		c-24	5.642	6.535 E3	-15.8	0#	0.00
38		c-26	5.642	6.496 E3	-15.1	0#	0.00
39		c-28	5.642	6.287 E3	-11.4	0#	0.00
40	h	c-30	5.642	6.384 E3	-13.2	0#	0.00
41	h	c-36	5.642	4.697 E3	16.7	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1913-ECC1911
Lab FileID: BC37600.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37600.D\FID1A.CH         Vial: 95
 Signal #2 : C:\MSDCHEM\1\DATA\BC37600.D\FID2B.CH
 Acq On    : 3-11-10 09:13:38 AM                      Operator: KimD
 Sample    : ecc1911-50                               Inst    : GCBC
 Misc      : op20804,gbc1913,11.45,,,2,,              Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Tue Mar 09 14:12:20 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ----------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     5.557   0.000 E3  100.0#    0# -7.30#
22 s   bht                            0.000   0.000       0.0     0# -17.59#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -17.59#
-----------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37515.D  EPH031010.M       Thu Mar 11 14:11:34 2010   RPGEN1
```

9.6.5

9

Initial Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1915-ICC1915
Lab FileID: BC37606.D

Response Factor Report GCBC

Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration

Calibration Files
1 =BC37604.D 2 =BC37605.D 3 =BC37606.D 4 =BC37607.D
5 =BC37608.D 6 =BC37609.D 7 =BC37610.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1)h c11-c22 aromatics	6.314							6.314 E3	0.00
2) naphthalene	6.649	6.489	6.634	6.384	7.870	6.376	6.128	6.647 E3	8.54
3) 2-methylnaphthale	6.546	6.324	6.447	6.261	7.637	6.207	5.583	6.429 E3	9.58
4)s 2-fluorobiphenyl	5.959	5.798	5.939	5.698	6.925	5.722	5.265	5.901 E3	8.59
5) acenaphthylene	6.606	6.459	6.643	6.436	8.032	6.753	6.384	6.759 E3	8.53
6)s 2-bromonaphthalen	4.039	3.907	3.988	3.844	4.558	3.406	2.765	3.787 E3	14.88
7) acenaphthene	6.809	6.673	6.860	6.705	8.506	7.466	7.048	7.152 E3	9.16
8) fluorene	6.571	6.380	6.518	6.239	7.566	6.261	6.055	6.513 E3	7.62
9) phenanthrene	6.812	6.527	6.697	6.462	7.798	6.209	5.563	6.581 E3	10.27
10) anthracene	6.477	6.357	6.586	6.421	7.882	6.496	5.967	6.598 E3	9.10
11)s o-terphenyl	6.795	6.637	6.879	6.754	8.500	7.347	7.108	7.146 E3	9.00
12) fluoranthene	6.542	6.507	6.757	6.575	8.088	6.710	6.286	6.781 E3	8.80
13) pyrene	6.697	6.700	6.936	6.736	8.355	7.063	6.436	6.989 E3	9.07
14) benzo(a)anthracen	5.781	5.633	5.809	5.557	6.542	4.729	3.705	5.394 E3	16.96
15) chrysene	6.163	6.415	6.712	6.557	8.065	6.862	6.624	6.771 E3	9.05
16) benzo(b)fluoranth	5.725	6.046	6.347	6.123	7.317	5.566	4.688	5.973 E3	13.42
17) benzo(k)fluoranth	5.232	5.904	6.529	6.521	8.160	6.821	6.250	6.488 E3	13.91
18) benzo(a)pyrene	4.902	6.009	6.514	6.427	7.760	6.223	5.409	6.178 E3	14.67
19) indeno(1,2,3-cd)p		4.562	5.624	5.835	6.833	4.600	3.389	5.141 E3	23.46
20) dibenzo(ah)anthra		4.411	5.544	5.703	6.472	4.396	3.259	4.964 E3	23.30
21) benzo(ghi)perylen		4.110	5.507	5.973	7.302	5.482	4.843	5.536 E3	19.50
22)s bht	1.890							1.890	0.00
23)s BHT								0.000	-1.00

Signal #2

25)h c-9	6.344							6.344 E3	0.00
26)h c-10	6.344							6.344 E3	0.00
27) naphthalene #2	7.274	7.479	7.277	7.040	6.643	6.611	6.800	7.018 E3	4.87
28) c-12	6.344							6.344 E3	0.00
29) 2-methylnaphthale	6.588	6.771	6.547	6.168	5.851	5.866	5.964	6.251 E3	6.09
30) c-14	6.344							6.344 E3	0.00
31) c-16	6.344							6.344 E3	0.00
32) c-18	6.344							6.344 E3	0.00
33) c-19	5.332							5.332 E3	0.00
34) c-20	5.332							5.332 E3	0.00
35)s 1-chlorooctadecan	5.265	5.527	5.090	4.551	4.160	3.808	3.690	4.584 E3	15.91
36) c-22	5.332							5.332 E3	0.00
37) c-24	5.332							5.332 E3	0.00
38) c-26	5.332							5.332 E3	0.00
39) c-28	5.332							5.332 E3	0.00
40)h c-30	5.332							5.332 E3	0.00
41)h c-36	5.332							5.332 E3	0.00
42)s BHT	0.100							0.100	0.00
43)s BHT	0.100							0.100	0.00
44)s BHT	0.100							0.100	0.00

Initial Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1915-ICC1915
Lab FileID: BC37606.D

(#) = Out of Range

EPH031110.M Fri Mar 12 11:48:05 2010 RPGEN1

Initial Calibration Verification

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1915-ICV1915
Lab FileID: BC37611.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37611.D\FID1A.CH         Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37611.D\FID2B.CH
Acq On    : 3-11-10 04:53:04 PM                       Operator: KimD
Sample    : icv1915-50                                Inst    : GCBC
Misc      : op20829,gbc1915,11.12,,,2,,               Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.414 E3	3.5	97	0.00
3		2-methylnaphthalene	6.429	6.193 E3	3.7	96	0.00
4	s	2-fluorobiphenyl	5.901	5.993 E3	-1.6	101	0.00
5		acenaphthylene	6.759	6.495 E3	3.9	98	0.00
6	s	2-bromonaphthalene	3.787	4.031 E3	-6.4	101	0.00
7		acenaphthene	7.152	6.750 E3	5.6	98	0.00
8		fluorene	6.513	6.456 E3	0.9	99	0.00
9		phenanthrene	6.581	6.245 E3	5.1	93	0.00
10		anthracene	6.598	6.503 E3	1.4	99	0.00
11	s	o-terphenyl	7.146	6.882 E3	3.7	100	0.00
12		fluoranthene	6.781	6.678 E3	1.5	99	0.00
13		pyrene	6.989	6.721 E3	3.8	97	0.00
14		benzo(a)anthracene	5.394	6.582 E3	-22.0	113	0.00
15		chrysene	6.771	6.685 E3	1.3	100	0.00
16		benzo(b)fluoranthene	5.973	6.576 E3	-10.1	104	0.00
17		benzo(k)fluoranthene	6.488	6.708 E3	-3.4	103	0.00
18		benzo(a)pyrene	6.178	6.410 E3	-3.8	98	0.00
19		indeno(1,2,3-cd)pyrene	5.141	5.567 E3	-8.3	99	0.00
20		dibenzo(ah)anthracene	4.964	5.653 E3	-13.9	102	0.00
21		benzo(ghi)perylene	5.536	5.550 E3	-0.3	101	0.00
Signal #2							
25	h	c-9	6.344	6.178 E3	2.6	0#	0.00
26	h	c-10	6.344	6.119 E3	3.5	0#	0.00
27		naphthalene #2	7.018	6.027 E3	14.1	83	0.00
28		c-12	6.344	5.762 E3	9.2	0#	0.00
29		2-methylnaphthalene #2	6.251	5.777 E3	7.6	88	0.00
30		c-14	6.344	5.407 E3	14.8	0#	0.00
31		c-16	6.344	5.271 E3	16.9	0#	0.00
32		c-18	6.344	5.258 E3	17.1	0#	0.00
33		c-19	5.332	5.205 E3	2.4	0#	0.00
34		c-20	5.332	5.213 E3	2.2	0#	0.00
35	s	1-chlorooctadecane	4.584	4.188 E3	8.6	82	0.00
36		c-22	5.332	5.312 E3	0.4	0#	0.00
37		c-24	5.332	5.247 E3	1.6	0#	0.00
38		c-26	5.332	5.341 E3	-0.2	0#	0.00
39		c-28	5.332	5.241 E3	1.7	0#	0.00
40	h	c-30	5.332	5.183 E3	2.8	0#	0.00
41	h	c-36	5.332	3.939 E3	26.1#	0#	0.00

Initial Calibration Verification

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1915-ICV1915
Lab FileID: BC37611.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37611.D\FID1A.CH         Vial: 91
 Signal #2 : C:\MSDCHEM\1\DATA\BC37611.D\FID2B.CH
 Acq On    : 3-11-10 04:53:04 PM                      Operator: KimD
 Sample    : icv1915-50                               Inst    : GCBC
 Misc      : op20829,gbc1915,11.12,,,2,,              Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)      6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                             1.890   0.000     100.0#    0# -17.58#
23 s   BHT                             0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                             0.100   0.000     100.0#    0# -20.00#
43 s   BHT                             0.100   0.000     100.0#    0# -21.00#
44 s   BHT                             0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031110.M       Fri Mar 12 11:39:58 2010   RPGEN1
```

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1915-CC1915
Lab FileID: BC37622.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37622.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37622.D\FID2B.CH
Acq On    : 12 Mar 2010  12:06 am                    Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20804,gbc1915,11.45,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.704 E3	-0.9	101	0.00
3		2-methylnaphthalene	6.429	6.580 E3	-2.3	102	0.00
4	s	2-fluorobiphenyl	5.901	5.870 E3	0.5	99	0.00
5		acenaphthylene	6.759	6.679 E3	1.2	101	0.00
6	s	2-bromonaphthalene	3.787	3.962 E3	-4.6	99	0.00
7		acenaphthene	7.152	6.934 E3	3.0	101	0.00
8		fluorene	6.513	6.666 E3	-2.3	102	0.00
9		phenanthrene	6.581	6.777 E3	-3.0	101	0.00
10		anthracene	6.598	6.678 E3	-1.2	101	0.00
11	s	o-terphenyl	7.146	6.979 E3	2.3	101	0.00
12		fluoranthene	6.781	6.822 E3	-0.6	101	0.00
13		pyrene	6.989	6.829 E3	2.3	98	0.00
14		benzo(a)anthracene	5.394	6.374 E3	-18.2	110	0.00
15		chrysene	6.771	6.817 E3	-0.7	102	0.00
16		benzo(b)fluoranthene	5.973	6.504 E3	-8.9	102	0.00
17		benzo(k)fluoranthene	6.488	6.496 E3	-0.1	100	0.00
18		benzo(a)pyrene	6.178	6.576 E3	-6.4	101	0.00
19		indeno(1,2,3-cd)pyrene	5.141	5.703 E3	-10.9	101	0.00
20		dibenzo(ah)anthracene	4.964	5.715 E3	-15.1	103	0.00
21		benzo(ghi)perylene	5.536	5.443 E3	1.7	99	0.00
Signal #2							
25	h	c-9	6.344	6.453 E3	-1.7	0#	0.00
26	h	c-10	6.344	6.516 E3	-2.7	0#	0.00
27		naphthalene #2	7.018	6.775 E3	3.5	93	0.00
28		c-12	6.344	6.766 E3	-6.7	0#	0.00
29		2-methylnaphthalene #2	6.251	6.528 E3	-4.4	100	0.00
30		c-14	6.344	6.228 E3	1.8	0#	0.00
31		c-16	6.344	6.235 E3	1.7	0#	0.00
32		c-18	6.344	6.320 E3	0.4	0#	0.00
33		c-19	5.332	6.270 E3	-17.6	0#	0.00
34		c-20	5.332	6.244 E3	-17.1	0#	0.00
35	s	1-chlorooctadecane	4.584	5.060 E3	-10.4	99	0.00
36		c-22	5.332	6.320 E3	-18.5	0#	0.00
37		c-24	5.332	6.336 E3	-18.8	0#	0.00
38		c-26	5.332	6.261 E3	-17.4	0#	0.00
39		c-28	5.332	6.267 E3	-17.5	0#	0.00
40	h	c-30	5.332	6.281 E3	-17.8	0#	0.00
41	h	c-36	5.332	5.036 E3	5.6	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1915-CC1915
Lab FileID: BC37622.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37622.D\FID1A.CH         Vial: 100
 Signal #2 : C:\MSDCHEM\1\DATA\BC37622.D\FID2B.CH
 Acq On    : 12 Mar 2010  12:06 am                    Operator: KimD
 Sample    : cc1915-50                                Inst    : GCBC
 Misc      : op20804,gbc1915,11.45,,,2,,              Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                            1.890   0.000     100.0#    0# -17.58#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -20.00#
43 s   BHT                            0.100   0.000     100.0#    0# -21.00#
44 s   BHT                            0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031110.M       Fri Mar 12 11:39:59 2010   RPGEN1
```

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1917-CC1915
Lab FileID: BC37675A.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37675A.D\FID1A.CH        Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37675A.D\FID2B.CH
Acq On    : 3-16-10 08:22:58 AM                       Operator: KimD
Sample    : cc1915-50                                 Inst    : GCBC
Misc      : op20839,gbc1917,800,,,2,,                 Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.443 E3	3.1	97	0.00
3		2-methylnaphthalene	6.429	6.325 E3	1.6	98	0.00
4	s	2-fluorobiphenyl	5.901	5.640 E3	4.4	95	0.00
5		acenaphthylene	6.759	6.373 E3	5.7	96	0.00
6	s	2-bromonaphthalene	3.787	3.793 E3	-0.2	95	0.00
7		acenaphthene	7.152	6.613 E3	7.5	96	0.00
8		fluorene	6.513	6.407 E3	1.6	98	0.00
9		phenanthrene	6.581	6.478 E3	1.6	97	0.00
10		anthracene	6.598	6.370 E3	3.5	97	0.00
11	s	o-terphenyl	7.146	6.721 E3	5.9	98	0.00
12		fluoranthene	6.781	6.492 E3	4.3	96	0.00
13		pyrene	6.989	6.496 E3	7.1	94	0.00
14		benzo(a)anthracene	5.394	6.049 E3	-12.1	104	0.00
15		chrysene	6.771	6.457 E3	4.6	96	0.00
16		benzo(b)fluoranthene	5.973	5.989 E3	-0.3	94	0.00
17		benzo(k)fluoranthene	6.488	6.051 E3	6.7	93	0.00
18		benzo(a)pyrene	6.178	6.091 E3	1.4	94	0.00
19		indeno(1,2,3-cd)pyrene	5.141	4.729 E3	8.0	84	0.00
20		dibenzo(ah)anthracene	4.964	4.830 E3	2.7	87	0.00
21		benzo(ghi)perylene	5.536	4.389 E3	20.7	80	0.00
Signal #2							
25	h	c-9	6.344	6.354 E3	-0.2	0#	0.00
26	h	c-10	6.344	6.408 E3	-1.0	0#	0.00
27		naphthalene #2	7.018	6.385 E3	9.0	88	0.00
28		c-12	6.344	6.516 E3	-2.7	0#	0.00
29		2-methylnaphthalene #2	6.251	5.971 E3	4.5	91	0.00
30		c-14	6.344	5.754 E3	9.3	0#	0.00
31		c-16	6.344	5.573 E3	12.2	0#	0.00
32		c-18	6.344	5.602 E3	11.7	0#	0.00
33		c-19	5.332	5.523 E3	-3.6	0#	0.00
34		c-20	5.332	5.505 E3	-3.2	0#	0.00
35	s	1-chlorooctadecane	4.584	4.305 E3	6.1	85	0.00
36		c-22	5.332	5.609 E3	-5.2	0#	0.00
37		c-24	5.332	5.628 E3	-5.6	0#	0.00
38		c-26	5.332	5.608 E3	-5.2	0#	0.00
39		c-28	5.332	5.502 E3	-3.2	0#	0.00
40	h	c-30	5.332	5.670 E3	-6.3	0#	0.00
41	h	c-36	5.332	4.665 E3	12.5	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1917-CC1915
Lab FileID: BC37675A.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37675A.D\FID1A.CH        Vial: 95
 Signal #2 : C:\MSDCHEM\1\DATA\BC37675A.D\FID2B.CH
 Acq On    : 3-16-10 08:22:58 AM                      Operator: KimD
 Sample    : cc1915-50                                Inst    : GCBC
 Misc      : op20839,gbc1917,800,,,2,,                Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)      6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                             1.890   0.000     100.0#    0# -17.58#
23 s   BHT                             0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                             0.100   0.000     100.0#    0# -20.00#
43 s   BHT                             0.100   0.000     100.0#    0# -21.00#
44 s   BHT                             0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031510.M       Tue Mar 16 09:27:41 2010   RPGEN1
```

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1917-CC1915
Lab FileID: BC37685.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37685.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37685.D\FID2B.CH
Acq On    : 3-16-10 03:37:24 PM                       Operator: KimD
Sample    : cc1915-50                                 Inst    : GCBC
Misc      : op20839,gbc1917,900,,,2,,                 Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.542 E3	1.6	99	0.00
3		2-methylnaphthalene	6.429	6.428 E3	0.0	100	0.00
4	s	2-fluorobiphenyl	5.901	5.737 E3	2.8	97	0.00
5		acenaphthylene	6.759	6.500 E3	3.8	98	0.00
6	s	2-bromonaphthalene	3.787	3.865 E3	-2.1	97	0.00
7		acenaphthene	7.152	6.741 E3	5.7	98	0.00
8		fluorene	6.513	6.519 E3	-0.1	100	0.00
9		phenanthrene	6.581	6.588 E3	-0.1	98	0.00
10		anthracene	6.598	6.512 E3	1.3	99	0.00
11	s	o-terphenyl	7.146	6.791 E3	5.0	99	0.00
12		fluoranthene	6.781	6.659 E3	1.8	99	0.00
13		pyrene	6.989	6.676 E3	4.5	96	0.00
14		benzo(a)anthracene	5.394	6.219 E3	-15.3	107	0.00
15		chrysene	6.771	6.676 E3	1.4	99	0.00
16		benzo(b)fluoranthene	5.973	6.321 E3	-5.8	100	0.00
17		benzo(k)fluoranthene	6.488	6.455 E3	0.5	99	0.00
18		benzo(a)pyrene	6.178	6.500 E3	-5.2	100	0.00
19		indeno(1,2,3-cd)pyrene	5.141	5.700 E3	-10.9	101	0.00
20		dibenzo(ah)anthracene	4.964	5.694 E3	-14.7	103	0.00
21		benzo(ghi)perylene	5.536	5.505 E3	0.6	100	0.00

Signal #2

25	h	c-9	6.344	6.423 E3	-1.2	0#	0.00
26	h	c-10	6.344	6.466 E3	-1.9	0#	0.00
27		naphthalene #2	7.018	6.547 E3	6.7	90	0.00
28		c-12	6.344	6.624 E3	-4.4	0#	0.00
29		2-methylnaphthalene #2	6.251	6.182 E3	1.1	94	0.00
30		c-14	6.344	5.935 E3	6.4	0#	0.00
31		c-16	6.344	5.820 E3	8.3	0#	0.00
32		c-18	6.344	5.864 E3	7.6	0#	0.00
33		c-19	5.332	5.781 E3	-8.4	0#	0.00
34		c-20	5.332	5.752 E3	-7.9	0#	0.00
35	s	1-chlorooctadecane	4.584	4.590 E3	-0.1	90	0.00
36		c-22	5.332	5.845 E3	-9.6	0#	0.00
37		c-24	5.332	5.886 E3	-10.4	0#	0.00
38		c-26	5.332	5.815 E3	-9.1	0#	0.00
39		c-28	5.332	5.723 E3	-7.3	0#	0.00
40	h	c-30	5.332	5.877 E3	-10.2	0#	0.00
41	h	c-36	5.332	5.106 E3	4.2	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1917-CC1915
Lab FileID: BC37685.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37685.D\FID1A.CH         Vial: 100
 Signal #2 : C:\MSDCHEM\1\DATA\BC37685.D\FID2B.CH
 Acq On    : 3-16-10 03:37:24 PM                      Operator: KimD
 Sample    : cc1915-50                                Inst    : GCBC
 Misc      : op20839,gbc1917,900,,,2,,                Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                            1.890   0.000     100.0#    0# -17.58#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -20.00#
43 s   BHT                            0.100   0.000     100.0#    0# -21.00#
44 s   BHT                            0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031510.M       Tue Mar 16 16:28:55 2010   RPGEN1
```

9.6.10

9

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1917-CC1915
Lab FileID: BC37696.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37696.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37696.D\FID2B.CH
Acq On    : 16 Mar 2010  11:07 pm                    Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20804,gbc1917,11.40,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.710 E3	-0.9	101	0.00
3		2-methylnaphthalene	6.429	6.591 E3	-2.5	102	0.00
4	s	2-fluorobiphenyl	5.901	5.882 E3	0.3	99	0.00
5		acenaphthylene	6.759	6.661 E3	1.4	100	0.00
6	s	2-bromonaphthalene	3.787	3.962 E3	-4.6	99	0.00
7		acenaphthene	7.152	6.913 E3	3.3	101	0.00
8		fluorene	6.513	6.677 E3	-2.5	102	0.00
9		phenanthrene	6.581	6.753 E3	-2.6	101	0.00
10		anthracene	6.598	6.674 E3	-1.2	101	0.00
11	s	o-terphenyl	7.146	6.942 E3	2.9	101	0.00
12		fluoranthene	6.781	6.817 E3	-0.5	101	0.00
13		pyrene	6.989	6.836 E3	2.2	99	0.00
14		benzo(a)anthracene	5.394	6.375 E3	-18.2	110	0.00
15		chrysene	6.771	6.828 E3	-0.8	102	0.00
16		benzo(b)fluoranthene	5.973	6.517 E3	-9.1	103	0.00
17		benzo(k)fluoranthene	6.488	6.533 E3	-0.7	100	0.00
18		benzo(a)pyrene	6.178	6.636 E3	-7.4	102	0.00
19		indeno(1,2,3-cd)pyrene	5.141	5.758 E3	-12.0	102	0.00
20		dibenzo(ah)anthracene	4.964	5.771 E3	-16.3	104	0.00
21		benzo(ghi)perylene	5.536	5.512 E3	0.4	100	0.00
Signal #2							
25	h	c-9	6.344	6.573 E3	-3.6	0#	0.00
26	h	c-10	6.344	6.620 E3	-4.4	0#	0.00
27		naphthalene #2	7.018	6.705 E3	4.5	92	0.00
28		c-12	6.344	6.784 E3	-6.9	0#	0.00
29		2-methylnaphthalene #2	6.251	6.330 E3	-1.3	97	0.00
30		c-14	6.344	6.084 E3	4.1	0#	0.00
31		c-16	6.344	5.950 E3	6.2	0#	0.00
32		c-18	6.344	5.982 E3	5.7	0#	0.00
33		c-19	5.332	5.884 E3	-10.4	0#	0.00
34		c-20	5.332	5.849 E3	-9.7	0#	0.00
35	s	1-chlorooctadecane	4.584	4.664 E3	-1.7	92	0.00
36		c-22	5.332	5.939 E3	-11.4	0#	0.00
37		c-24	5.332	5.914 E3	-10.9	0#	0.00
38		c-26	5.332	5.902 E3	-10.7	0#	0.00
39		c-28	5.332	5.806 E3	-8.9	0#	0.00
40	h	c-30	5.332	5.992 E3	-12.4	0#	0.00
41	h	c-36	5.332	5.198 E3	2.5	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1917-CC1915
Lab FileID: BC37696.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37696.D\FID1A.CH         Vial: 100
 Signal #2 : C:\MSDCHEM\1\DATA\BC37696.D\FID2B.CH
 Acq On    : 16 Mar 2010  11:07 pm                    Operator: KimD
 Sample    : cc1915-50                                Inst    : GCBC
 Misc      : op20804,gbc1917,11.40,,,2,,              Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                            1.890   0.000     100.0#    0# -17.58#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -20.00#
43 s   BHT                            0.100   0.000     100.0#    0# -21.00#
44 s   BHT                            0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031510.M       Wed Mar 17 09:27:56 2010   RPGEN1
```

9.6.11

9

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1917-ECC1915
Lab FileID: BC37705.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37705.D\FID1A.CH         Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37705.D\FID2B.CH
Acq On    : 3-17-10 05:03:15 AM                      Operator: KimD
Sample    : ecc1915-50                               Inst    : GCBC
Misc      : op20791,gbc1917,11.05,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.470 E3	2.7	98	0.00
3		2-methylnaphthalene	6.429	6.368 E3	0.9	99	0.00
4	s	2-fluorobiphenyl	5.901	5.689 E3	3.6	96	0.00
5		acenaphthylene	6.759	6.446 E3	4.6	97	0.00
6	s	2-bromonaphthalene	3.787	3.839 E3	-1.4	96	0.00
7		acenaphthene	7.152	6.686 E3	6.5	97	0.00
8		fluorene	6.513	6.472 E3	0.6	99	0.00
9		phenanthrene	6.581	6.533 E3	0.7	98	0.00
10		anthracene	6.598	6.453 E3	2.2	98	0.00
11	s	o-terphenyl	7.146	6.716 E3	6.0	98	0.00
12		fluoranthene	6.781	6.569 E3	3.1	97	0.00
13		pyrene	6.989	6.588 E3	5.7	95	0.00
14		benzo(a)anthracene	5.394	6.140 E3	-13.8	106	0.00
15		chrysene	6.771	6.583 E3	2.8	98	0.00
16		benzo(b)fluoranthene	5.973	6.217 E3	-4.1	98	0.00
17		benzo(k)fluoranthene	6.488	6.366 E3	1.9	98	0.00
18		benzo(a)pyrene	6.178	6.401 E3	-3.6	98	0.00
19		indeno(1,2,3-cd)pyrene	5.141	5.611 E3	-9.1	100	0.00
20		dibenzo(ah)anthracene	4.964	5.616 E3	-13.1	101	0.00
21		benzo(ghi)perylene	5.536	5.413 E3	2.2	98	0.00
Signal #2							
25	h	c-9	6.344	6.437 E3	-1.5	0#	0.00
26	h	c-10	6.344	6.502 E3	-2.5	0#	0.00
27		naphthalene #2	7.018	6.571 E3	6.4	90	0.00
28		c-12	6.344	6.703 E3	-5.7	0#	0.00
29		2-methylnaphthalene #2	6.251	6.213 E3	0.6	95	0.00
30		c-14	6.344	6.033 E3	4.9	0#	0.00
31		c-16	6.344	5.898 E3	7.0	0#	0.00
32		c-18	6.344	5.916 E3	6.7	0#	0.00
33		c-19	5.332	5.808 E3	-8.9	0#	0.00
34		c-20	5.332	5.770 E3	-8.2	0#	0.00
35	s	1-chlorooctadecane	4.584	4.584 E3	0.0	90	0.00
36		c-22	5.332	5.831 E3	-9.4	0#	0.00
37		c-24	5.332	5.862 E3	-9.9	0#	0.00
38		c-26	5.332	5.807 E3	-8.9	0#	0.00
39		c-28	5.332	5.815 E3	-9.1	0#	0.00
40	h	c-30	5.332	5.976 E3	-12.1	0#	0.00
41	h	c-36	5.332	5.242 E3	1.7	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1917-ECC1915
Lab FileID: BC37705.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37705.D\FID1A.CH         Vial: 95
 Signal #2 : C:\MSDCHEM\1\DATA\BC37705.D\FID2B.CH
 Acq On    : 3-17-10 05:03:15 AM                      Operator: KimD
 Sample    : ecc1915-50                               Inst    : GCBC
 Misc      : op20791,gbc1917,11.05,,,2,,              Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                            1.890   0.000     100.0#    0# -17.58#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -20.00#
43 s   BHT                            0.100   0.000     100.0#    0# -21.00#
44 s   BHT                            0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031510.M       Wed Mar 17 09:27:57 2010   RPGEN1
```

9.6.12

9

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1918-CC1915
Lab FileID: BC37706.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37706.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37706.D\FID2B.CH
Acq On    : 3-17-10 08:38:10 AM                       Operator: KimD
Sample    : cc1915-50                                 Inst    : GCBC
Misc      : op20865,gbc1918,1000,,,2,,                Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.519 E3	1.9	98	0.00
3		2-methylnaphthalene	6.429	6.410 E3	0.3	99	0.00
4	s	2-fluorobiphenyl	5.901	5.721 E3	3.1	96	0.00
5		acenaphthylene	6.759	6.483 E3	4.1	98	0.00
6	s	2-bromonaphthalene	3.787	3.866 E3	-2.1	97	0.00
7		acenaphthene	7.152	6.720 E3	6.0	98	0.00
8		fluorene	6.513	6.513 E3	0.0	100	0.00
9		phenanthrene	6.581	6.581 E3	0.0	98	0.00
10		anthracene	6.598	6.495 E3	1.6	99	0.00
11	s	o-terphenyl	7.146	6.761 E3	5.4	98	0.00
12		fluoranthene	6.781	6.606 E3	2.6	98	0.00
13		pyrene	6.989	6.621 E3	5.3	95	0.00
14		benzo(a)anthracene	5.394	6.175 E3	-14.5	106	0.00
15		chrysene	6.771	6.595 E3	2.6	98	0.00
16		benzo(b)fluoranthene	5.973	6.195 E3	-3.7	98	0.00
17		benzo(k)fluoranthene	6.488	6.220 E3	4.1	95	0.00
18		benzo(a)pyrene	6.178	6.253 E3	-1.2	96	0.00
19		indeno(1,2,3-cd)pyrene	5.141	4.745 E3	7.7	84	0.00
20		dibenzo(ah)anthracene	4.964	4.887 E3	1.6	88	0.00
21		benzo(ghi)perylene	5.536	4.359 E3	21.3	79	0.00

Signal #2

25	h	c-9	6.344	6.433 E3	-1.4	0#	0.00
26	h	c-10	6.344	6.478 E3	-2.1	0#	0.00
27		naphthalene #2	7.018	6.610 E3	5.8	91	0.00
28		c-12	6.344	6.707 E3	-5.7	0#	0.00
29		2-methylnaphthalene #2	6.251	6.270 E3	-0.3	96	0.00
30		c-14	6.344	6.064 E3	4.4	0#	0.00
31		c-16	6.344	5.956 E3	6.1	0#	0.00
32		c-18	6.344	6.010 E3	5.3	0#	0.00
33		c-19	5.332	5.908 E3	-10.8	0#	0.00
34		c-20	5.332	5.880 E3	-10.3	0#	0.00
35	s	1-chlorooctadecane	4.584	4.663 E3	-1.7	92	0.00
36		c-22	5.332	5.962 E3	-11.8	0#	0.00
37		c-24	5.332	6.004 E3	-12.6	0#	0.00
38		c-26	5.332	5.936 E3	-11.3	0#	0.00
39		c-28	5.332	5.826 E3	-9.3	0#	0.00
40	h	c-30	5.332	5.967 E3	-11.9	0#	0.00
41	h	c-36	5.332	5.156 E3	3.3	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1918-CC1915
Lab FileID: BC37706.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37706.D\FID1A.CH         Vial: 100
 Signal #2 : C:\MSDCHEM\1\DATA\BC37706.D\FID2B.CH
 Acq On    : 3-17-10 08:38:10 AM                      Operator: KimD
 Sample    : cc1915-50                                Inst    : GCBC
 Misc      : op20865,gbc1918,1000,,,2,,               Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                            1.890   0.000     100.0#    0# -17.58#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -20.00#
43 s   BHT                            0.100   0.000     100.0#    0# -21.00#
44 s   BHT                            0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031710.M       Wed Mar 17 10:51:45 2010   RPGEN1
```

9.6.13

9

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport
Sample: GBC1918-CC1915
Lab FileID: BC37717.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37717.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37717.D\FID2B.CH
Acq On    : 3-17-10 04:46:37 PM                      Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20865,gbc1918,910,,,2,,                Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

Method       : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	6.647	6.581 E3	1.0	99	0.00
3		2-methylnaphthalene	6.429	6.465 E3	-0.6	100	0.00
4	s	2-fluorobiphenyl	5.901	5.769 E3	2.2	97	0.00
5		acenaphthylene	6.759	6.545 E3	3.2	99	0.00
6	s	2-bromonaphthalene	3.787	3.888 E3	-2.7	97	0.00
7		acenaphthene	7.152	6.790 E3	5.1	99	0.00
8		fluorene	6.513	6.564 E3	-0.8	101	0.00
9		phenanthrene	6.581	6.633 E3	-0.8	99	0.00
10		anthracene	6.598	6.552 E3	0.7	99	0.00
11	s	o-terphenyl	7.146	6.819 E3	4.6	99	0.00
12		fluoranthene	6.781	6.697 E3	1.2	99	0.00
13		pyrene	6.989	6.715 E3	3.9	97	0.00
14		benzo(a)anthracene	5.394	6.255 E3	-16.0	108	0.00
15		chrysene	6.771	6.725 E3	0.7	100	0.00
16		benzo(b)fluoranthene	5.973	6.328 E3	-5.9	100	0.00
17		benzo(k)fluoranthene	6.488	6.478 E3	0.2	99	0.00
18		benzo(a)pyrene	6.178	6.507 E3	-5.3	100	0.00
19		indeno(1,2,3-cd)pyrene	5.141	5.615 E3	-9.2	100	0.00
20		dibenzo(ah)anthracene	4.964	5.622 E3	-13.3	101	0.00
21		benzo(ghi)perylene	5.536	5.368 E3	3.0	97	0.00
Signal #2							
25	h	c-9	6.344	6.537 E3	-3.0	0#	0.00
26	h	c-10	6.344	6.585 E3	-3.8	0#	0.00
27		naphthalene #2	7.018	6.716 E3	4.3	92	0.00
28		c-12	6.344	6.793 E3	-7.1	0#	0.00
29		2-methylnaphthalene #2	6.251	6.350 E3	-1.6	97	0.00
30		c-14	6.344	6.116 E3	3.6	0#	0.00
31		c-16	6.344	5.981 E3	5.7	0#	0.00
32		c-18	6.344	6.001 E3	5.4	0#	0.00
33		c-19	5.332	5.893 E3	-10.5	0#	0.00
34		c-20	5.332	5.849 E3	-9.7	0#	0.00
35	s	1-chlorooctadecane	4.584	4.638 E3	-1.2	91	0.00
36		c-22	5.332	5.908 E3	-10.8	0#	0.00
37		c-24	5.332	5.931 E3	-11.2	0#	0.00
38		c-26	5.332	5.859 E3	-9.9	0#	0.00
39		c-28	5.332	5.749 E3	-7.8	0#	0.00
40	h	c-30	5.332	5.946 E3	-11.5	0#	0.00
41	h	c-36	5.332	5.187 E3	2.7	0#	0.00

Continuing Calibration Summary

Job Number: F71731
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: TETRPAPT: NAUSTA Mayport

Sample: GBC1918-CC1915
Lab FileID: BC37717.D

```
       Evaluate Continuing Calibration Report - Not Founds

 Signal #1 : C:\MSDCHEM\1\DATA\BC37717.D\FID1A.CH         Vial: 100
 Signal #2 : C:\MSDCHEM\1\DATA\BC37717.D\FID2B.CH
 Acq On    : 3-17-10 04:46:37 PM                      Operator: KimD
 Sample    : cc1915-50                                Inst    : GCBC
 Misc      : op20865,gbc1918,910,,,2,,                Multiplr: 1.00
 IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p

 Method       : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
 Title        : BMAEPH
 Last Update  : Fri Mar 12 08:50:40 2010
 Response via : Multiple Level Calibration

 Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
 Max. RRF Dev :  25%     Max. Rel. Area : 125%

       Compound                        AvgRF   CCRF       %Dev  Area% Dev(Min)
 ---------------------------------------------------------------------------
 1 h   c11-c22 aromatics (Unadj.)     6.314   0.000 E3  100.0#    0# -7.30#
22 s   bht                            1.890   0.000     100.0#    0# -17.58#
23 s   BHT                            0.000   0.000       0.0     0# -25.00#

 Signal #2

42 s   BHT                            0.100   0.000     100.0#    0# -20.00#
43 s   BHT                            0.100   0.000     100.0#    0# -21.00#
44 s   BHT                            0.100   0.000     100.0#    0# -17.59#
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    BC37606.D  EPH031710.M       Thu Mar 18 10:10:51 2010   RPGEN1
```

GC Semi-volatiles

Raw Data

(Accutest Labs of New England, Inc.)

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
03/18/10 09:47

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37688.D\FID1A.CH          Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\BC37688.D\FID2B.CH
Acq On    : 3-16-10 05:36:09 PM                      Operator: KimD
Sample    : f71731-1,op20804                         Inst    : GCBC
Misc      : op20804,gbc1917,11.35,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:19:54 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s 2-fluorobiphenyl	9.36	93317	15.814	ppm	
Spiked Amount 20.000 Range 40 - 140		Recovery = 79.07%			
6) s 2-bromonaphthalene	10.45	53396	14.101	ppm	m
Spiked Amount 20.000 Range 40 - 140		Recovery = 70.51%			
11) s o-terphenyl	14.22	107823	15.089	ppm	
Spiked Amount 20.000 Range 40 - 140		Recovery = 75.45%			
35) s 1-chlorooctadecane	15.80	54141	11.810	ppm	m
Spiked Amount 20.000 Range 40 - 140		Recovery = 59.05%			
Target Compounds					
1) h c11-c22 aromatics (Unadj.)	7.30	2861381	453.175	ppm	
25) h c-9	3.81	892459	140.684	ppm	
41) h c-36	24.33	16743993	3140.402	ppm	

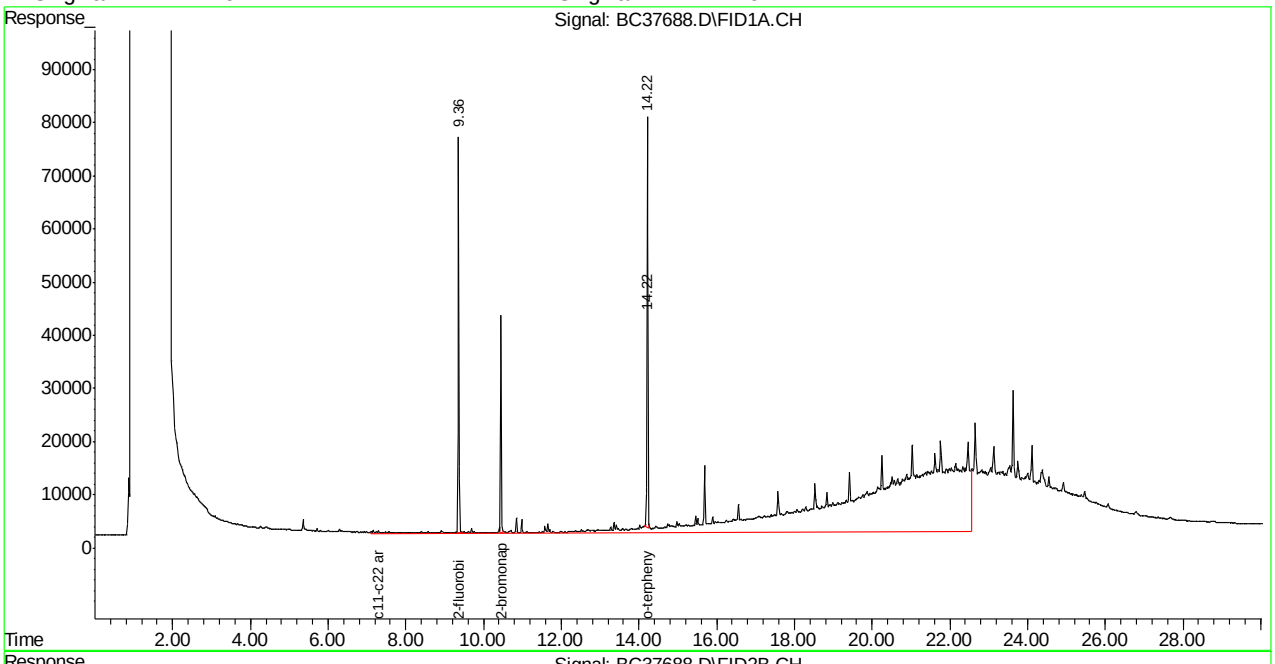
(f)=RT Delta > 1/2 Window (m)=manual int.

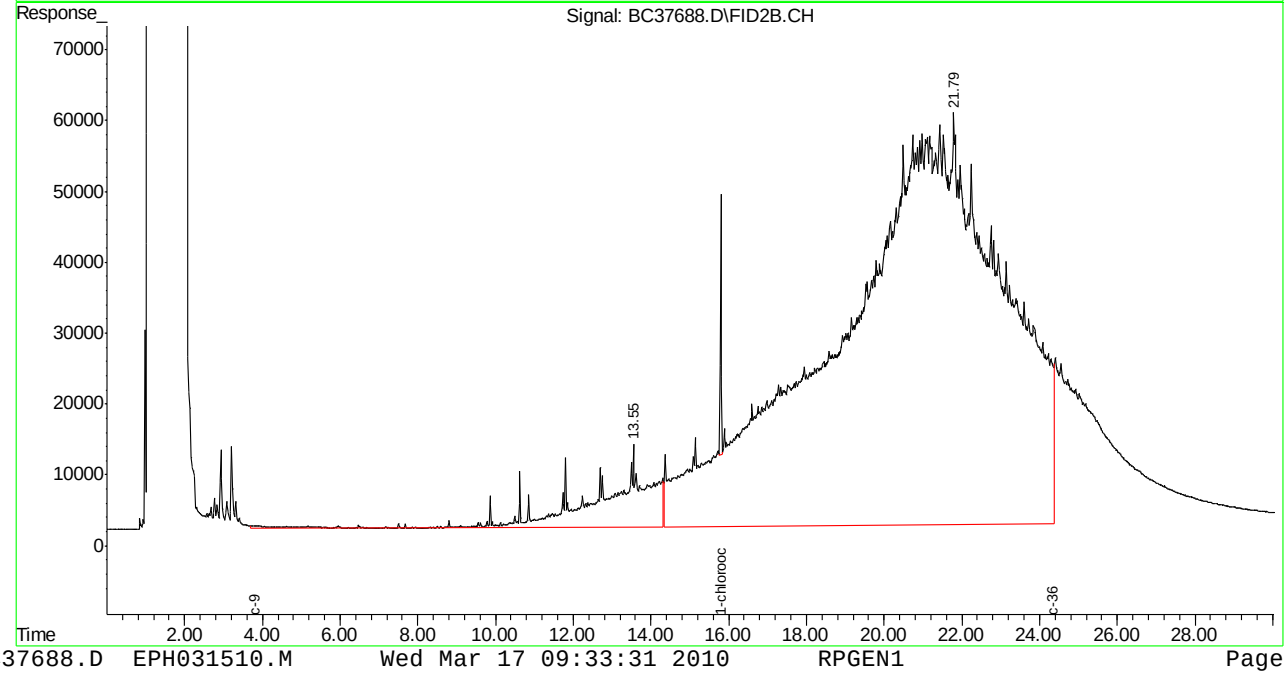
Quantitation Report (QT Reviewed)

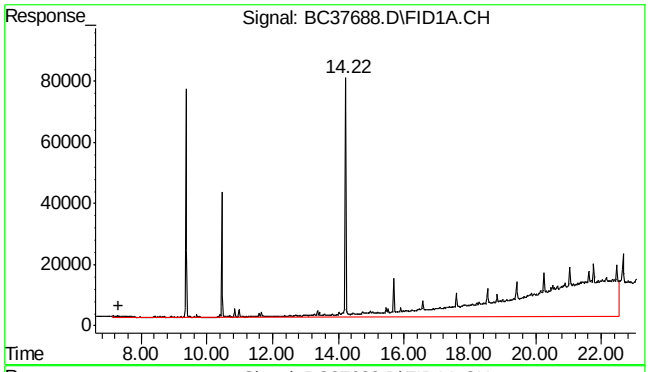
Signal #1 : C:\MSDCHEM\1\DATA\BC37688.D\FID1A.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\BC37688.D\FID2B.CH
Acq On : 3-16-10 05:36:09 PM Operator: KimD
Sample : f71731-1,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.35,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 9:33 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

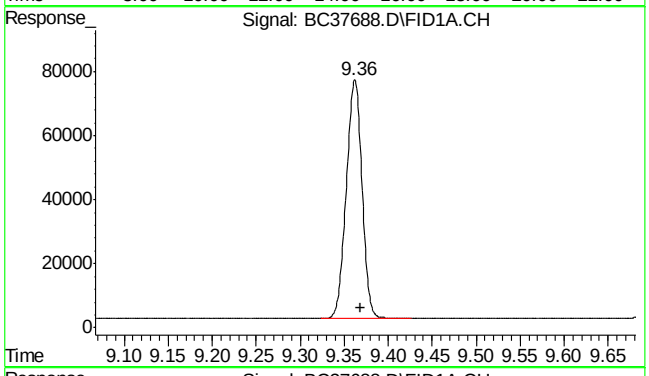






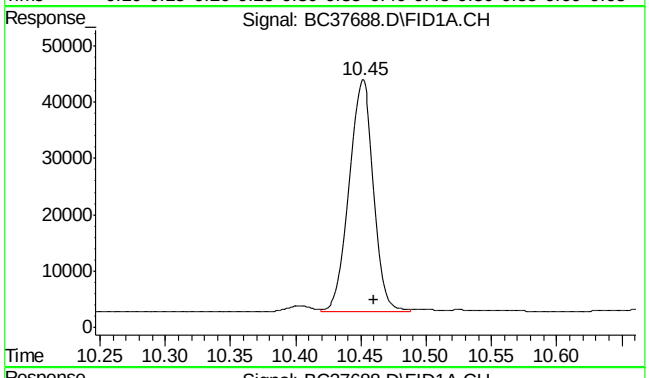
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 2861381
Conc: 453.18 ppm m



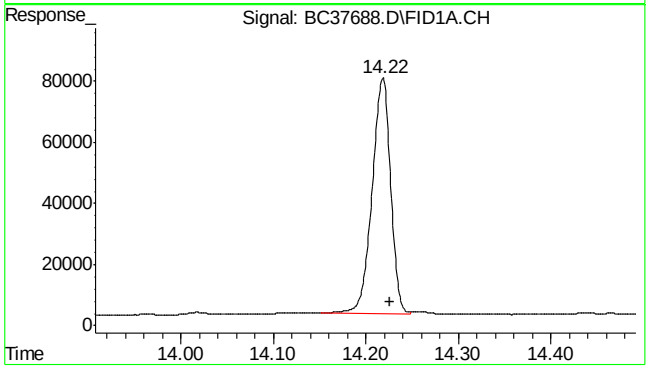
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 93317
Conc: 15.81 ppm



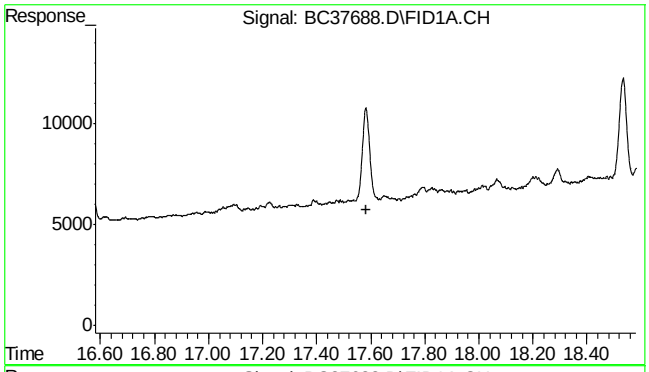
#6 2-bromonaphthalene

R.T.: 10.452 min
Delta R.T.: -0.009 min
Response: 53396
Conc: 14.10 ppm m



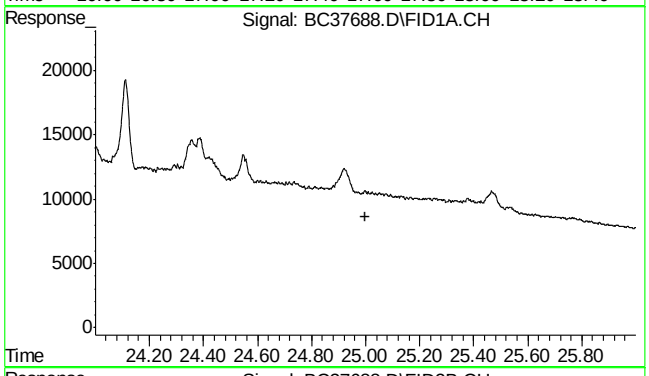
#11 o-terphenyl

R.T.: 14.218 min
Delta R.T.: -0.007 min
Response: 107823
Conc: 15.09 ppm



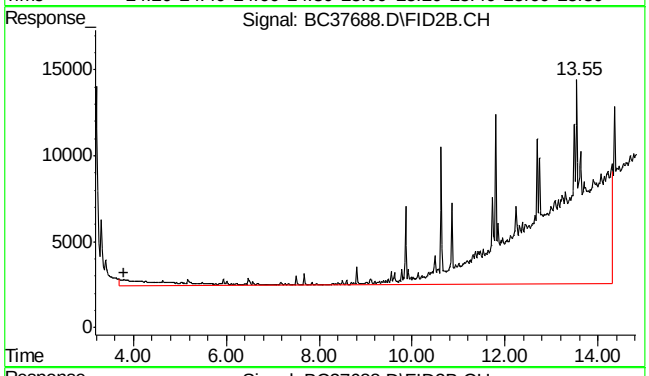
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



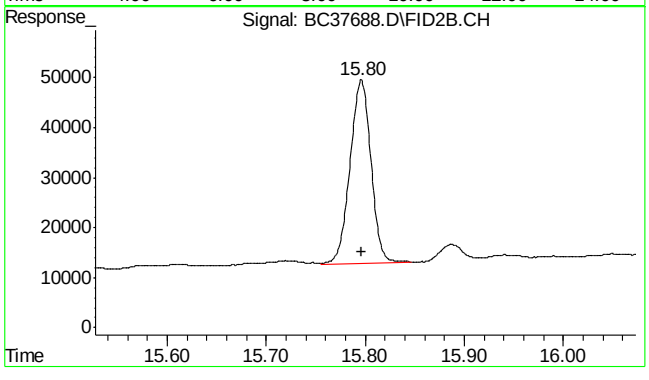
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



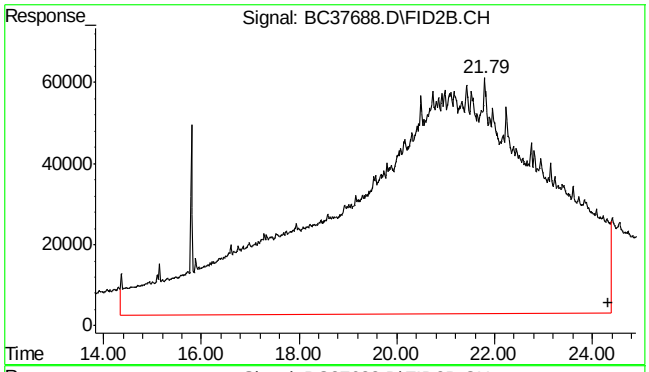
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 892459
Conc: 140.68 ppm m



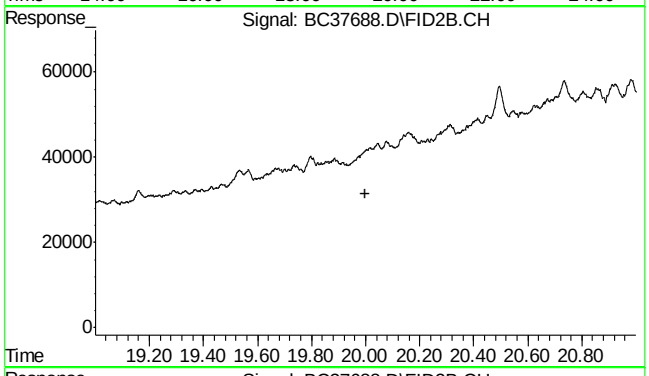
#35 1-chlorooctadecane

R.T.: 15.796 min
Delta R.T.: 0.000 min
Response: 54141
Conc: 11.81 ppm m



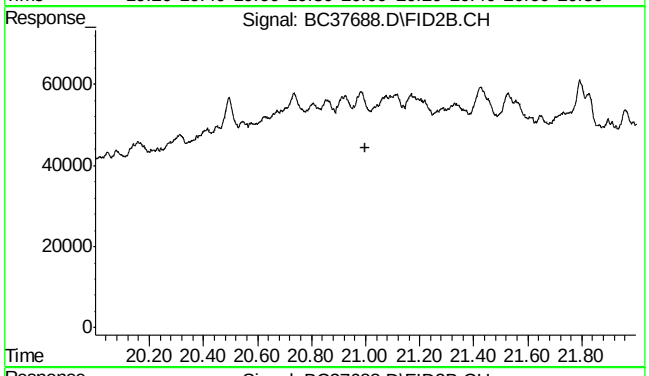
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 16743993
Conc: 3140.40 ppm m



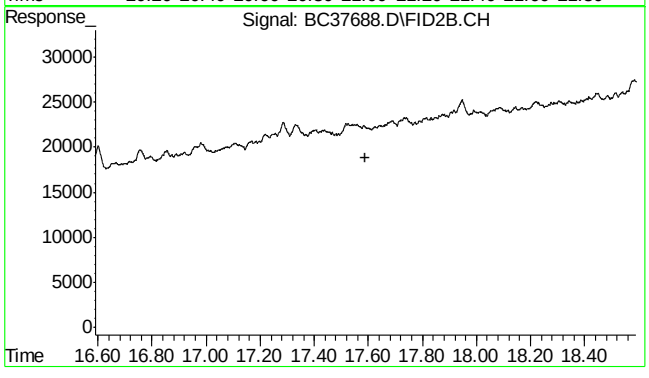
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37689.D\FID1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\BC37689.D\FID2B.CH
Acq On : 3-16-10 06:15:32 PM Operator: KimD
Sample : f71731-2,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.55,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:20:01 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	92300	15.641 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	78.20%
6) s 2-bromonaphthalene	10.45	55213	14.581 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	72.91%
11) s o-terphenyl	14.22	106722	14.935 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	74.67%
35) s 1-chlorooctadecane	15.79	52883	11.535 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	57.67%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	462025	73.174 ppm
19) indeno(1,2,3-cd)pyrene	22.36	7236	1.408 ppm
25) h c-9	3.81	144372	22.758 ppm
41) h c-36	24.33	298810	56.043 ppm

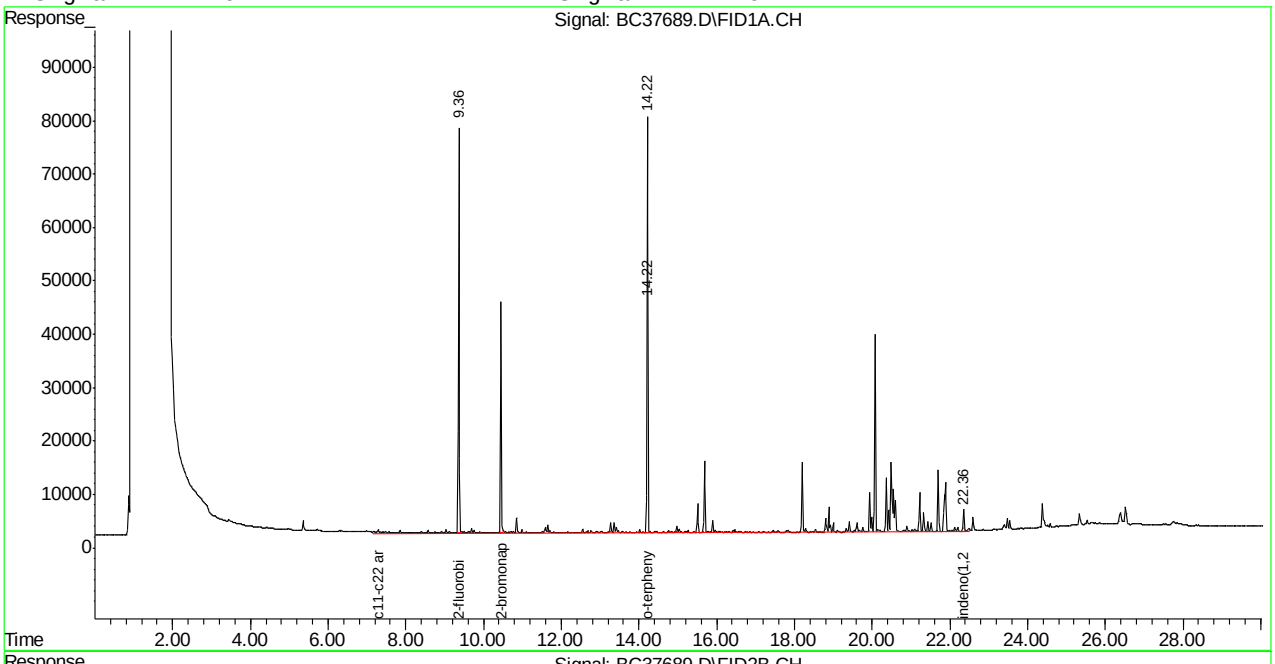
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37689.D EPH031510.M Wed Mar 17 09:23:10 2010 RPGEN1

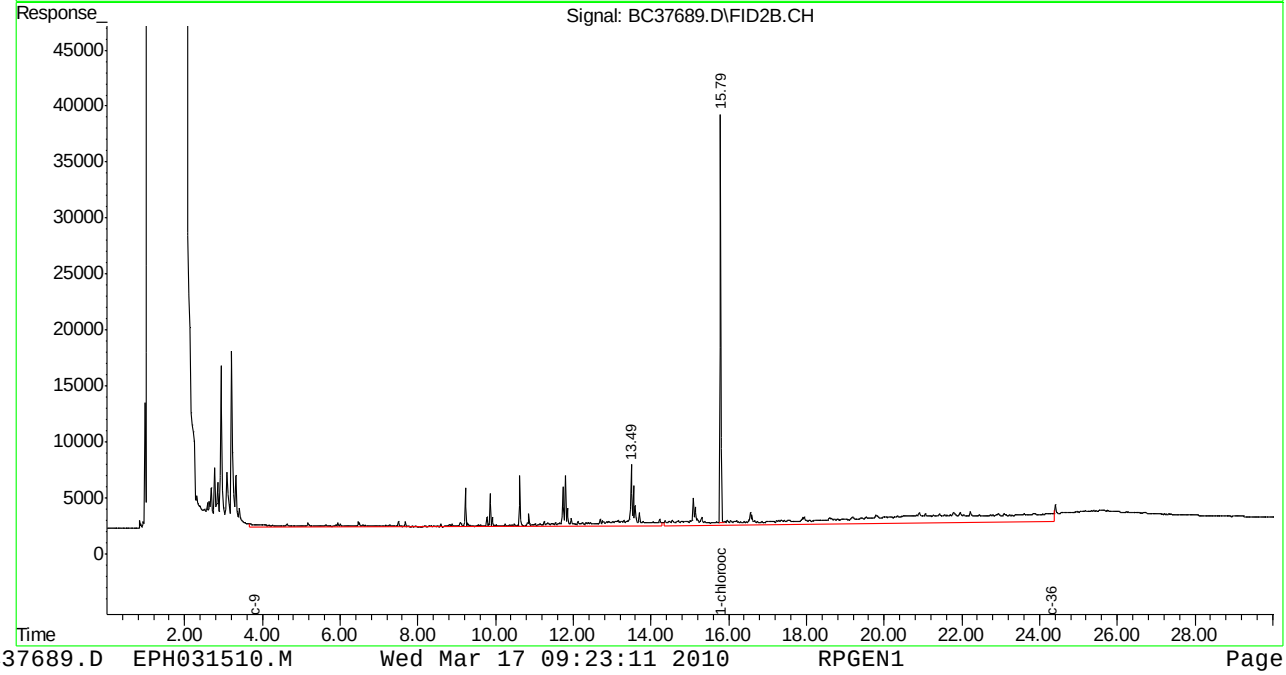
Quantitation Report (QT Reviewed)

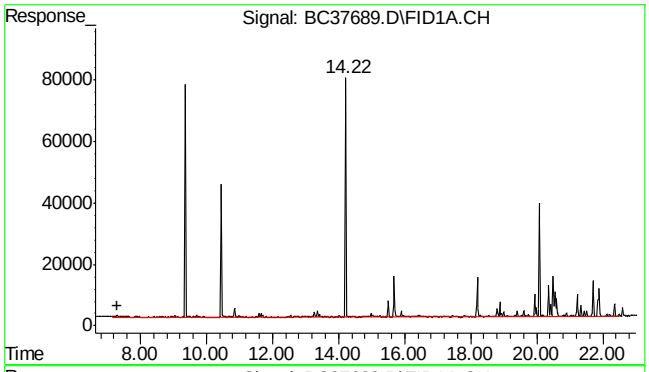
Signal #1 : C:\MSDCHEM\1\DATA\BC37689.D\FID1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\BC37689.D\FID2B.CH
Acq On : 3-16-10 06:15:32 PM Operator: KimD
Sample : f71731-2,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.55,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:44 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

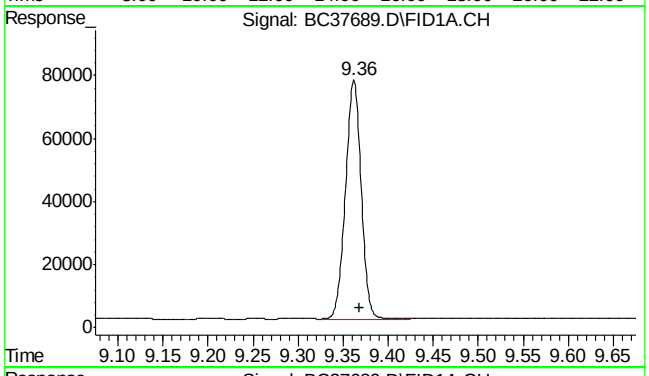






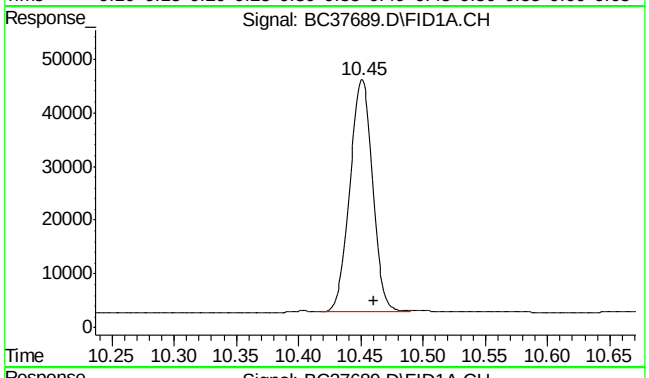
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 462025
Conc: 73.17 ppm m



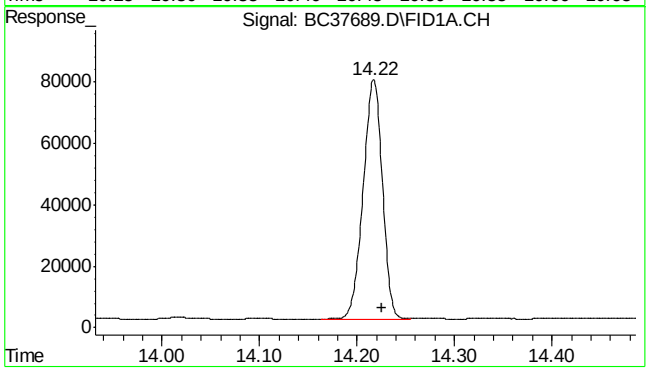
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 92300
Conc: 15.64 ppm



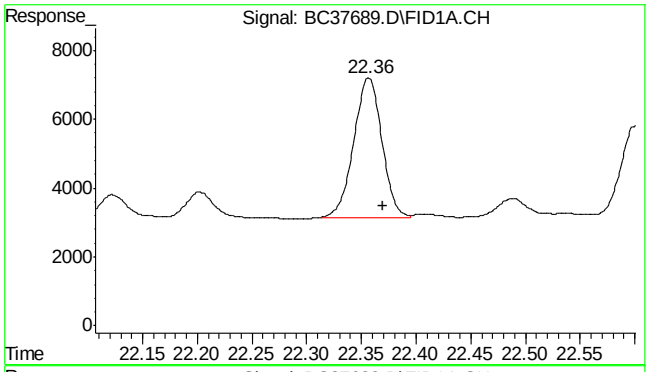
#6 2-bromonaphthalene

R.T.: 10.451 min
Delta R.T.: -0.009 min
Response: 55213
Conc: 14.58 ppm



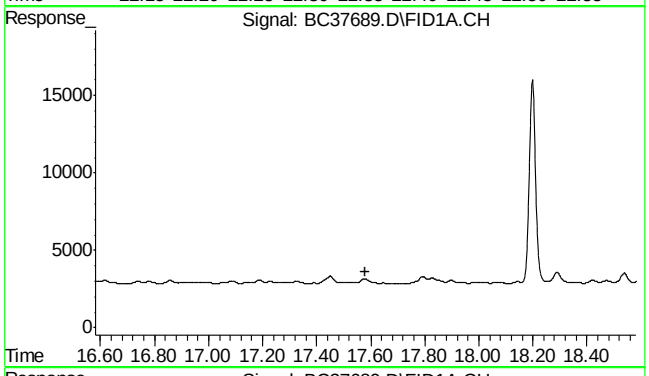
#11 o-terphenyl

R.T.: 14.217 min
Delta R.T.: -0.008 min
Response: 106722
Conc: 14.94 ppm



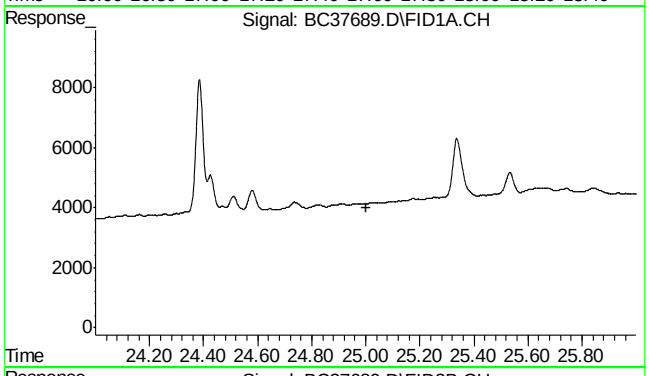
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.356 min
Delta R.T.: -0.014 min
Response: 7236
Conc: 1.41 ppm



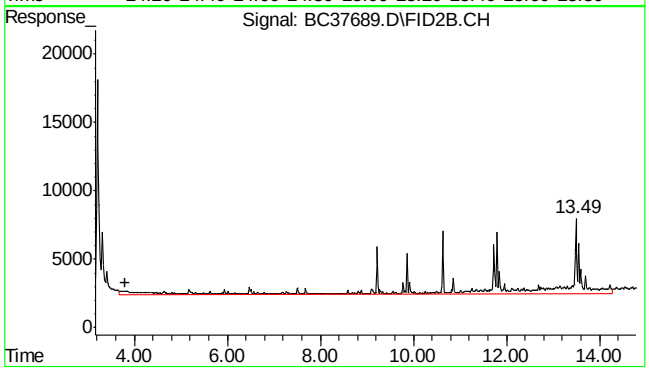
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



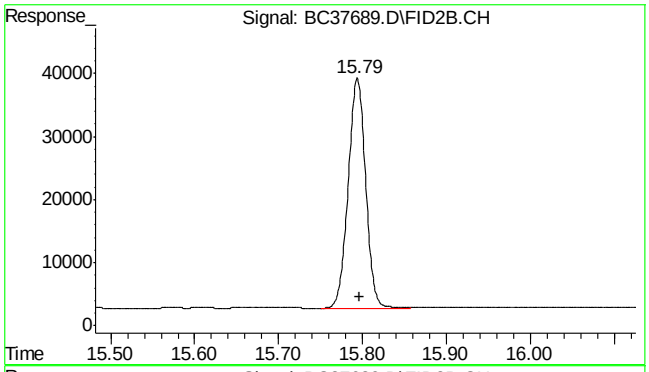
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



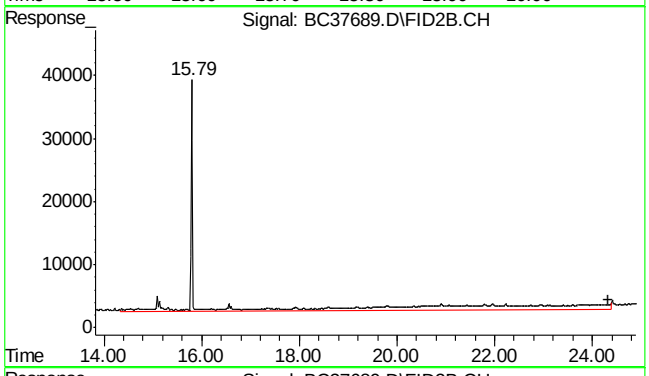
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 144372
Conc: 22.76 ppm m



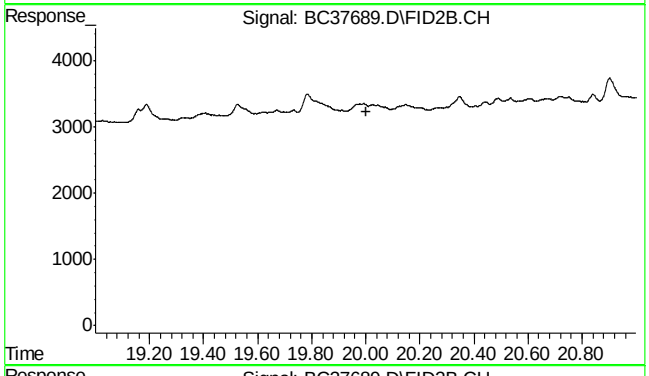
#35 1-chlorooctadecane

R.T.: 15.793 min
Delta R.T.: -0.003 min
Response: 52883
Conc: 11.54 ppm



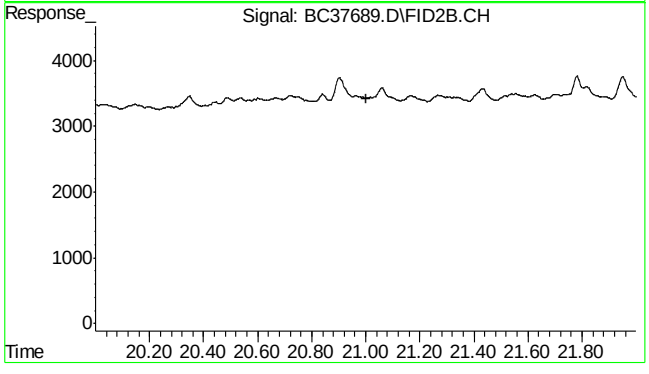
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 298810
Conc: 56.04 ppm m



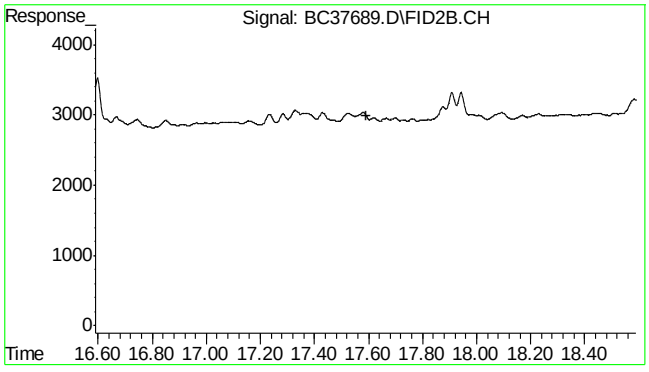
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.1.2

10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37690.D\FID1A.CH Vial: 20
Signal #2 : C:\MSDCHEM\1\DATA\BC37690.D\FID2B.CH
Acq On : 3-16-10 06:55:00 PM Operator: KimD
Sample : f71731-3,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.25,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:20:17 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	85435	14.478 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	72.39%
6) s 2-bromonaphthalene	10.45	50641	13.374 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	66.87%
11) s o-terphenyl	14.22	105925	14.824 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	74.12%
35) s 1-chlorooctadecane	15.79	57748	12.597 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	62.98%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	460677	72.960 ppm
25) h c-9	3.81	138420	21.820 ppm
41) h c-36	24.33	1946310	365.038 ppm

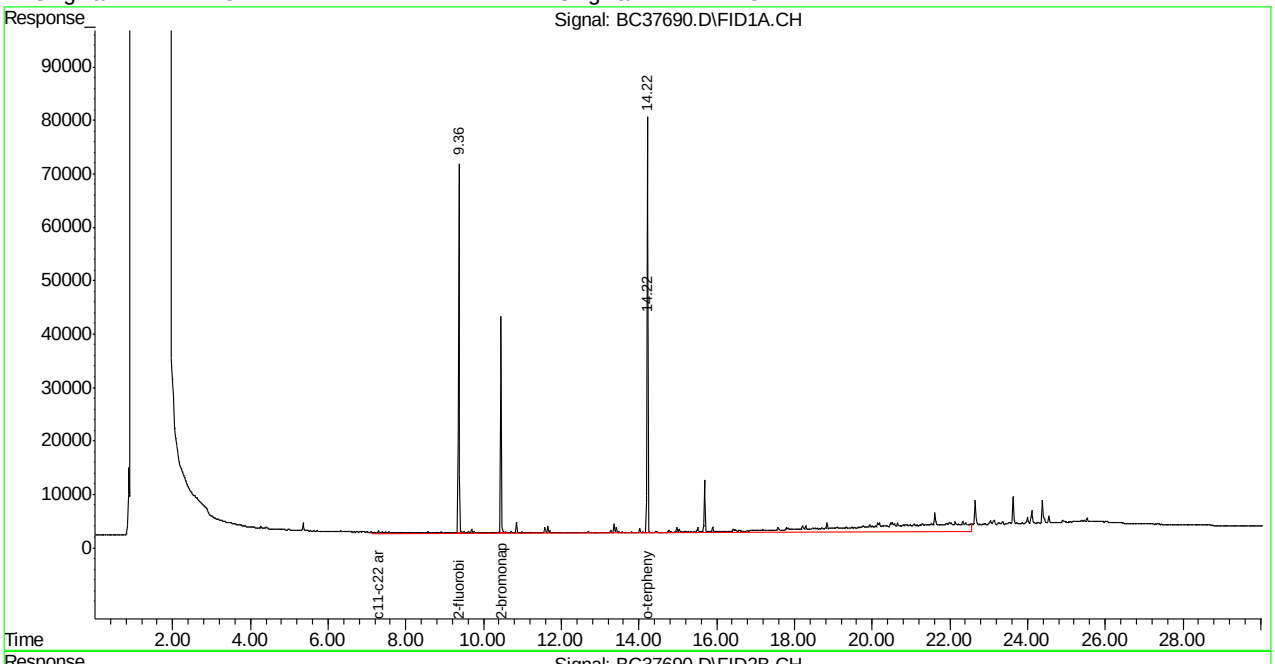
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37690.D EPH031510.M Wed Mar 17 09:23:17 2010 RPGEN1

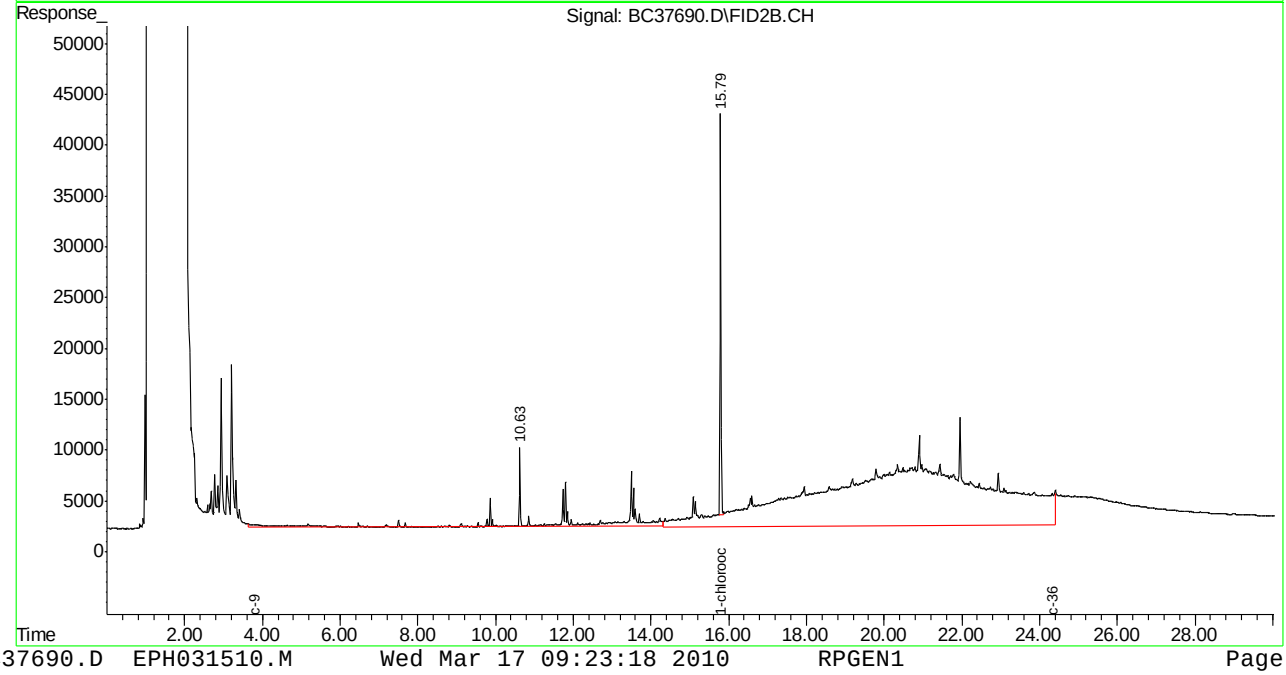
Quantitation Report (QT Reviewed)

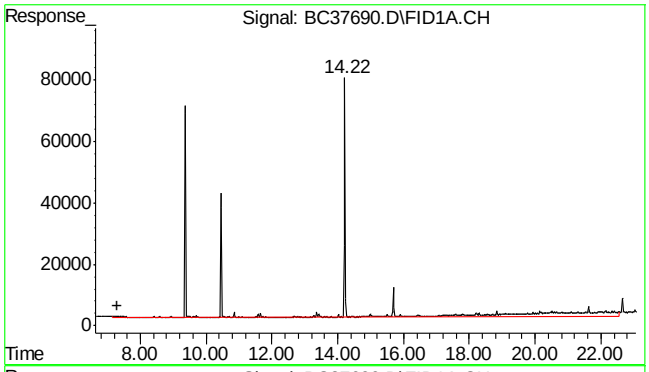
Signal #1 : C:\MSDCHEM\1\DATA\BC37690.D\FID1A.CH Vial: 20
Signal #2 : C:\MSDCHEM\1\DATA\BC37690.D\FID2B.CH
Acq On : 3-16-10 06:55:00 PM Operator: KimD
Sample : f71731-3,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.25,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:46 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

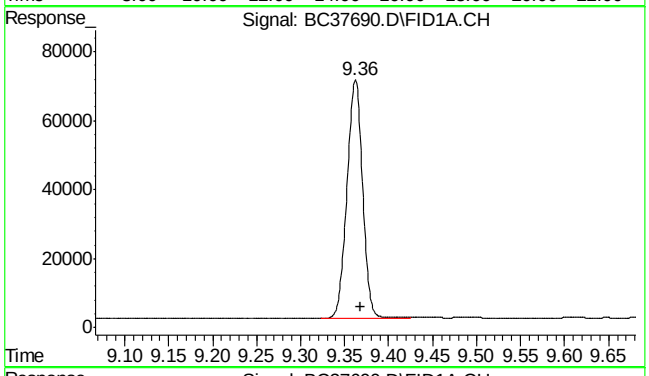






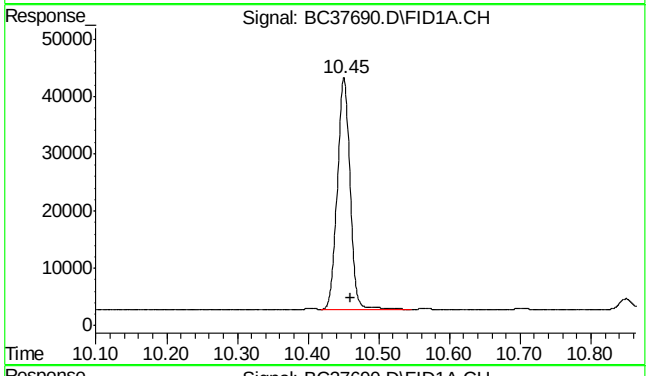
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 460677
Conc: 72.96 ppm m



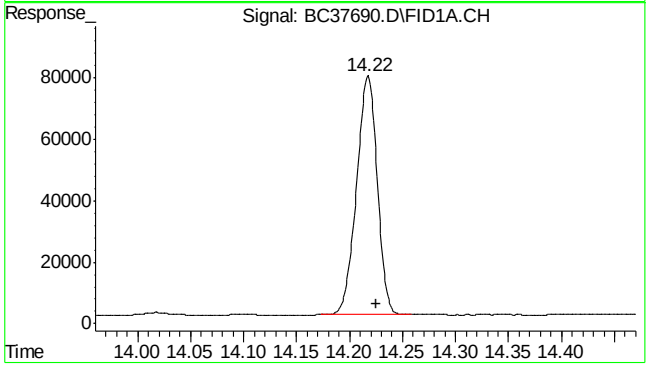
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 85435
Conc: 14.48 ppm



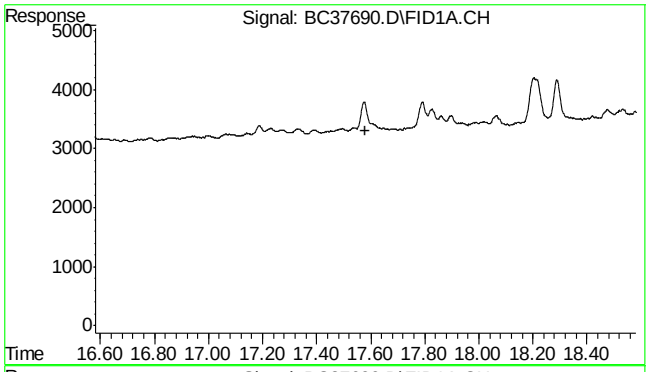
#6 2-bromonaphthalene

R.T.: 10.450 min
Delta R.T.: -0.010 min
Response: 50641
Conc: 13.37 ppm



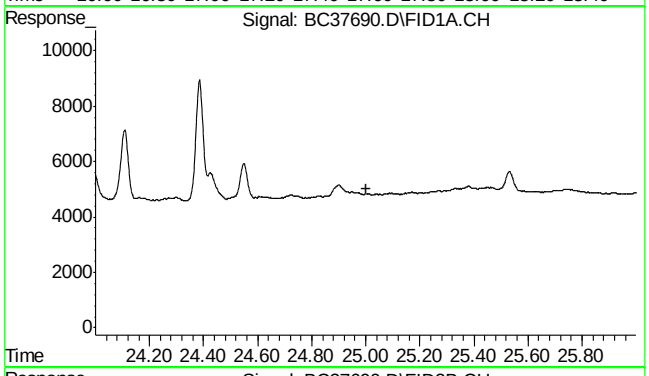
#11 o-terphenyl

R.T.: 14.217 min
Delta R.T.: -0.008 min
Response: 105925
Conc: 14.82 ppm



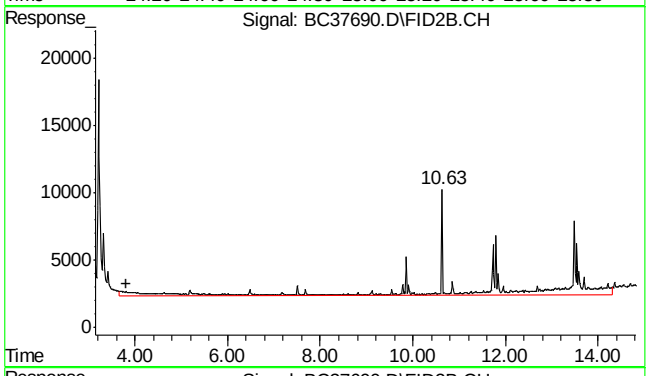
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



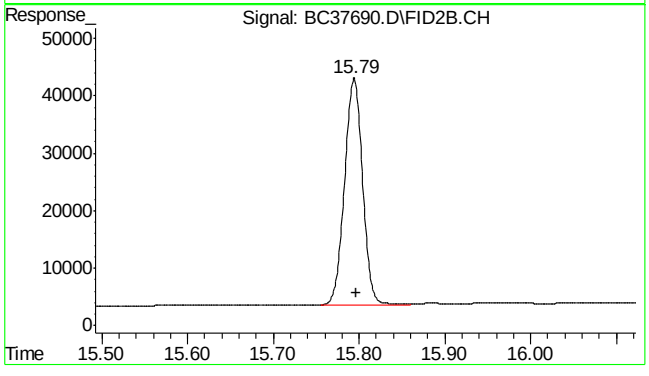
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



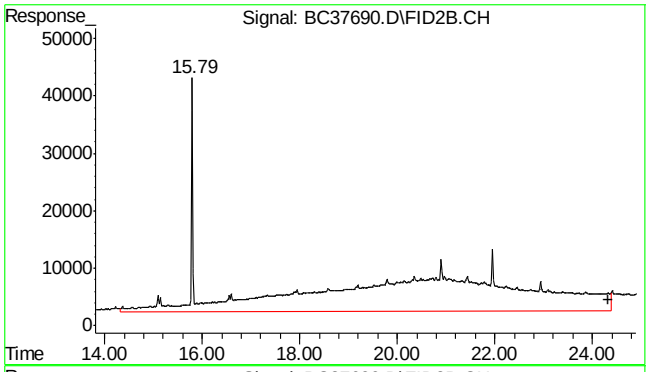
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 138420
Conc: 21.82 ppm m



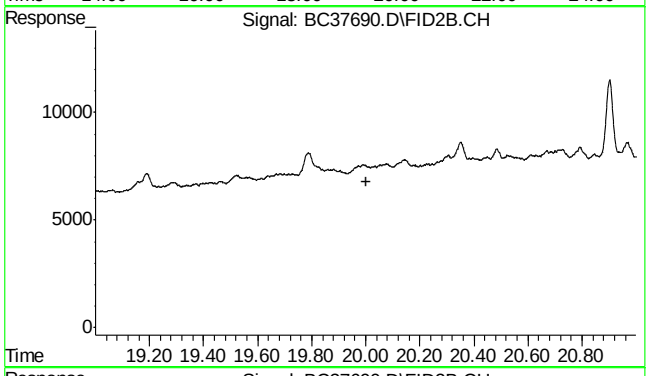
#35 1-chlorooctadecane

R.T.: 15.794 min
Delta R.T.: -0.002 min
Response: 57748
Conc: 12.60 ppm



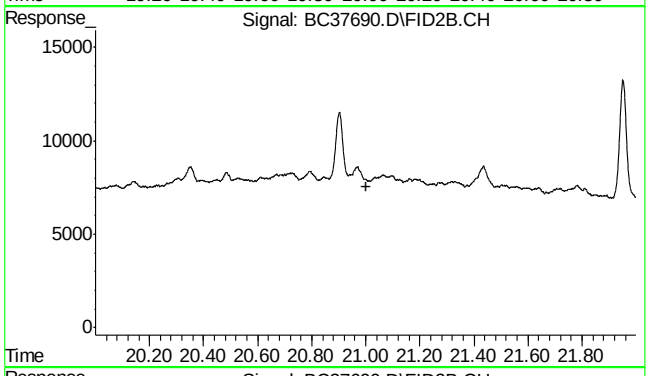
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 1946310
Conc: 365.04 ppm m



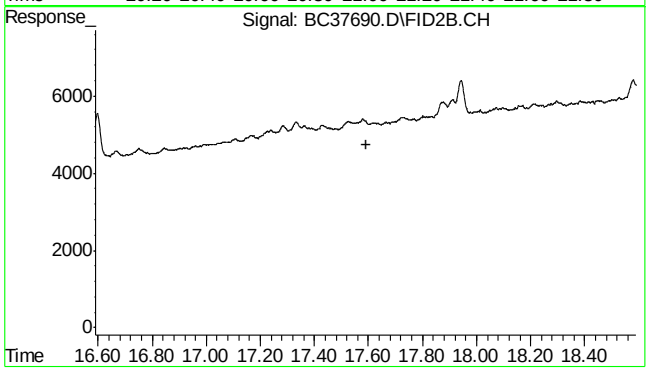
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37711.D\FID1A.CH          Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37711.D\FID2B.CH
Acq On    : 17 Mar 2010  12:49 pm                    Operator: KimD
Sample    : f71731-4,op20804,rf                      Inst    : GCBC
Misc      : op20804,gbc1918,11.25,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 13:45:12 2010  Quant Results File: EPH031710.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	88913	15.067 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	75.33%
6) s 2-bromonaphthalene	10.45	43392	11.459 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	57.29%
11) s o-terphenyl	14.21	98644	13.805 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	69.03%
35) s 1-chlorooctadecane	15.79	54774	11.948 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	59.74%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	120860	19.141 ppm
25) h c-9	3.81	126639	19.963 ppm
41) h c-36	24.33	100460	18.842 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

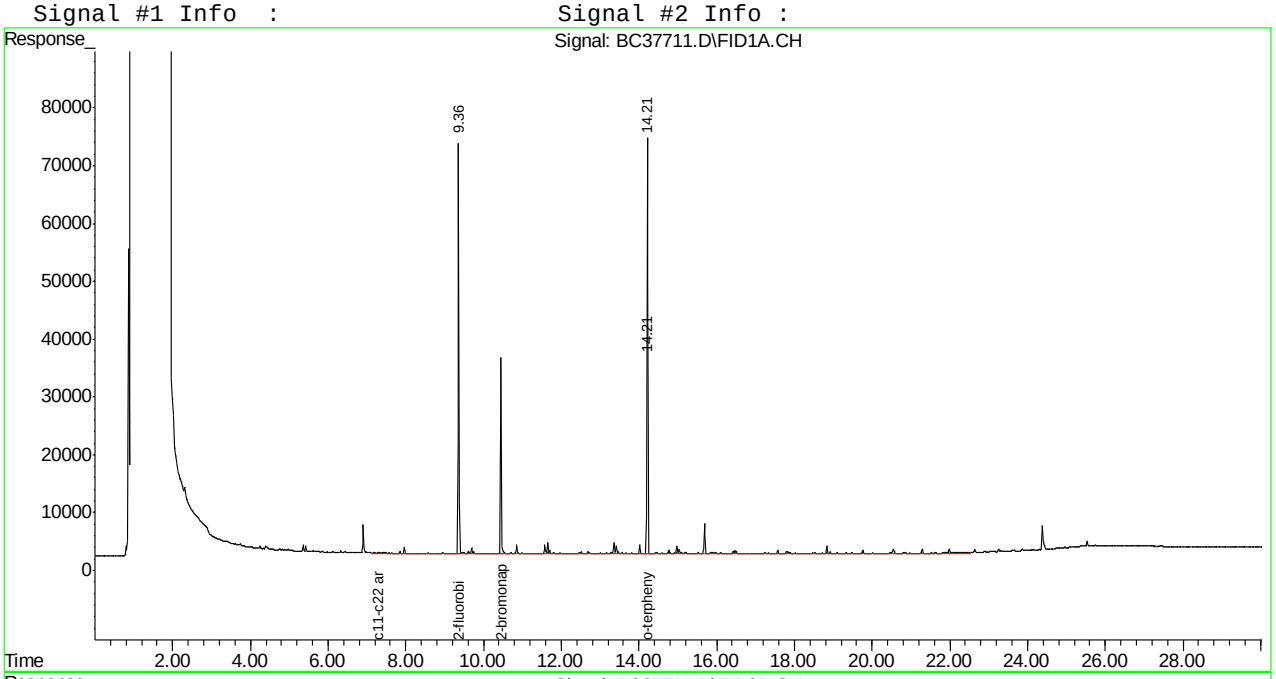
BC37711.D EPH031710.M Wed Mar 17 13:47:12 2010 RPGEN1

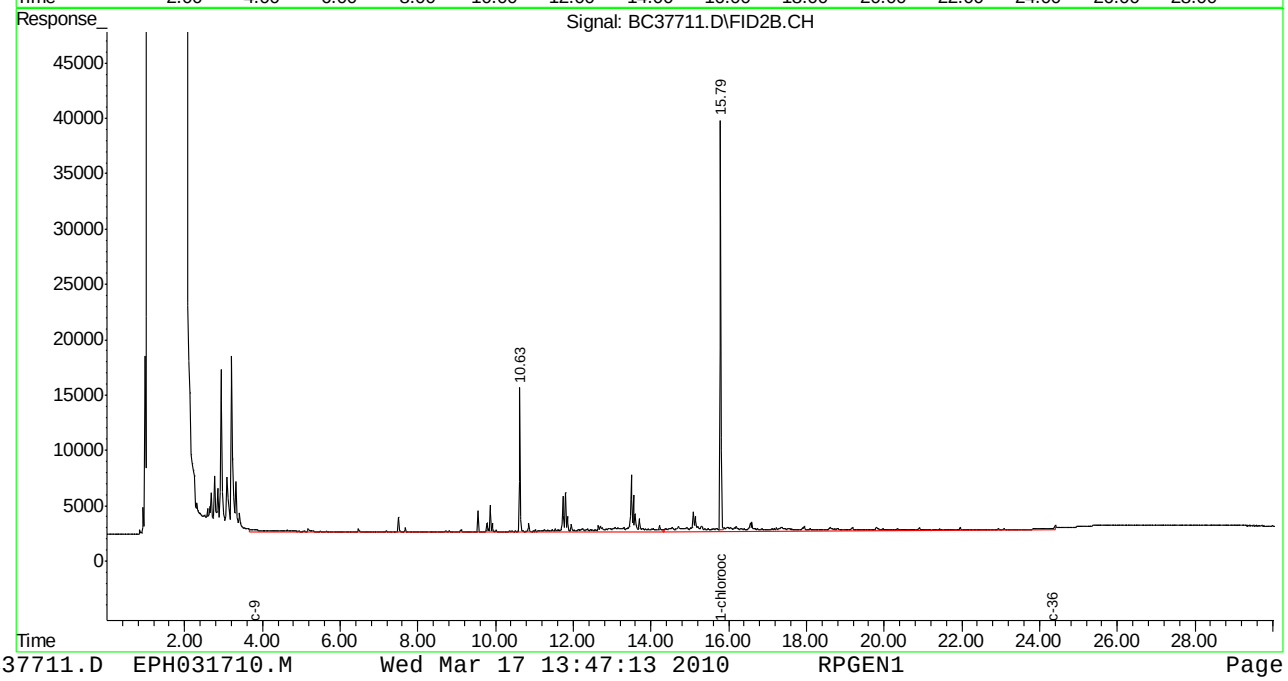
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37711.D\FID1A.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37711.D\FID2B.CH
Acq On : 17 Mar 2010 12:49 pm Operator: KimD
Sample : f71731-4,op20804,rf Inst : GCBC
Misc : op20804,gbc1918,11.25,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 13:47 2010 Quant Results File: EPH031710.RES

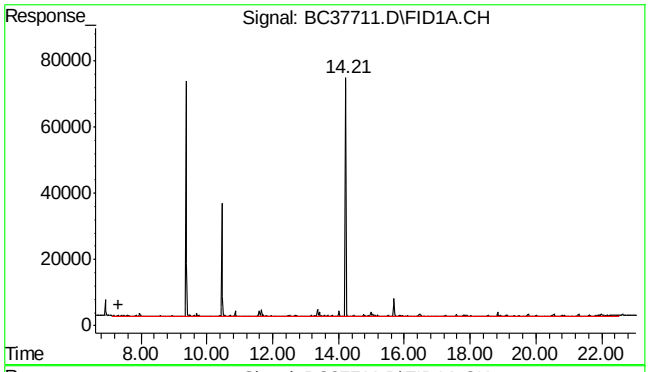
Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



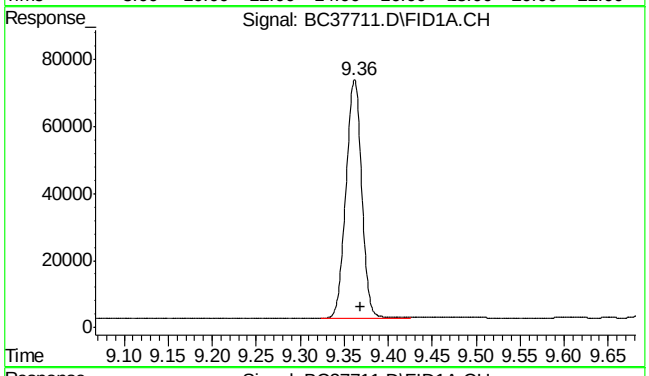


ACCUTEST Laboratories F71731



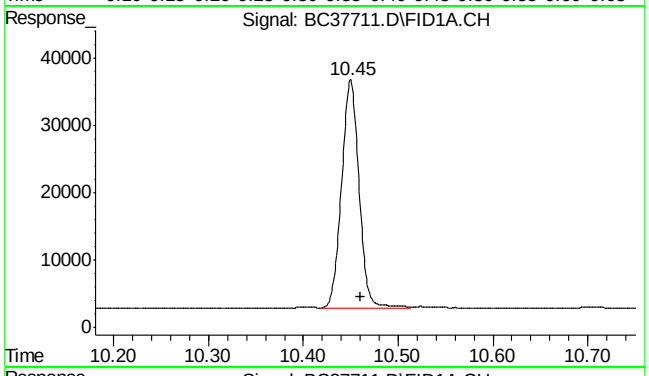
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 120860
Conc: 19.14 ppm m



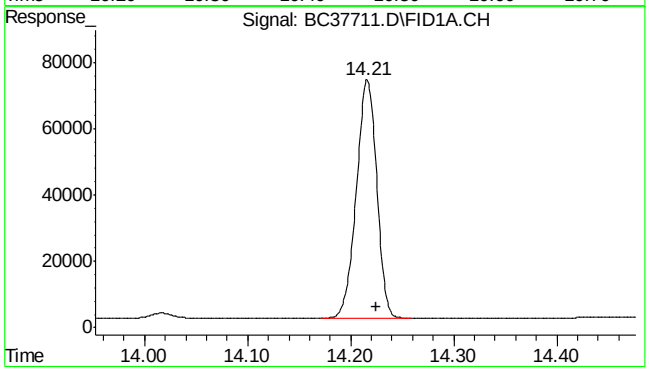
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 88913
Conc: 15.07 ppm



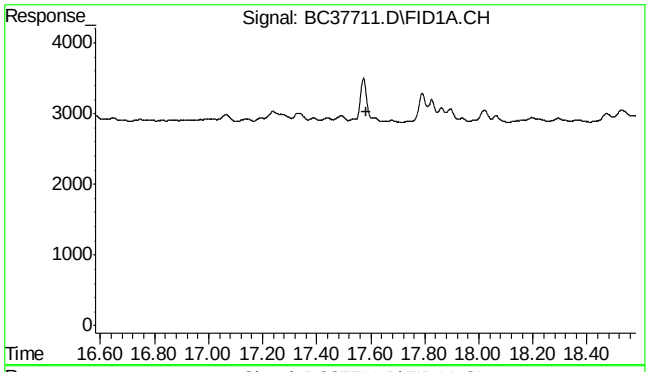
#6 2-bromonaphthalene

R.T.: 10.450 min
Delta R.T.: -0.010 min
Response: 43392
Conc: 11.46 ppm



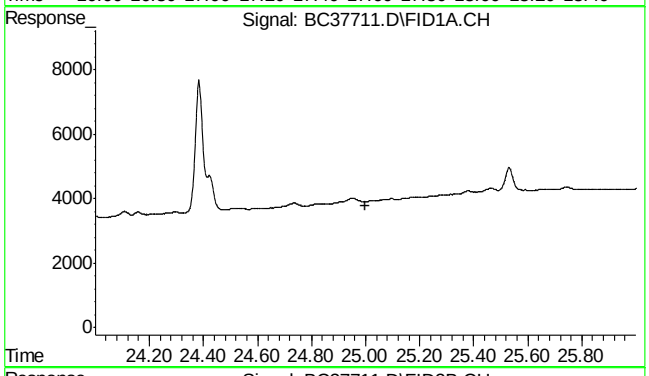
#11 o-terphenyl

R.T.: 14.215 min
Delta R.T.: -0.010 min
Response: 98644
Conc: 13.80 ppm



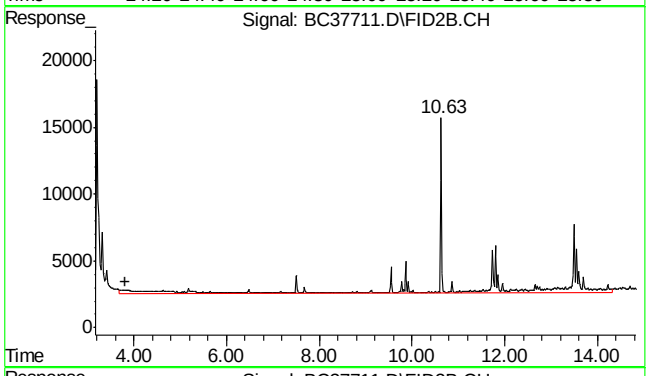
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



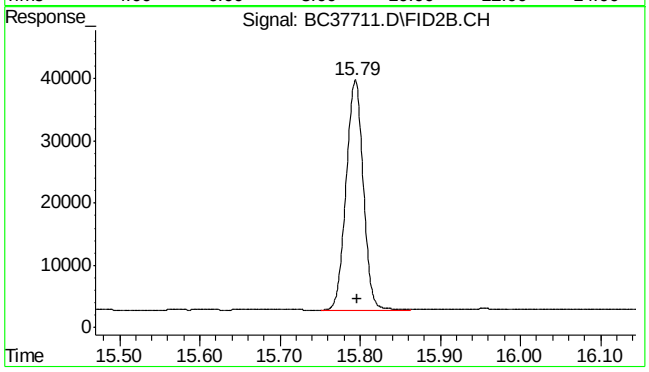
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



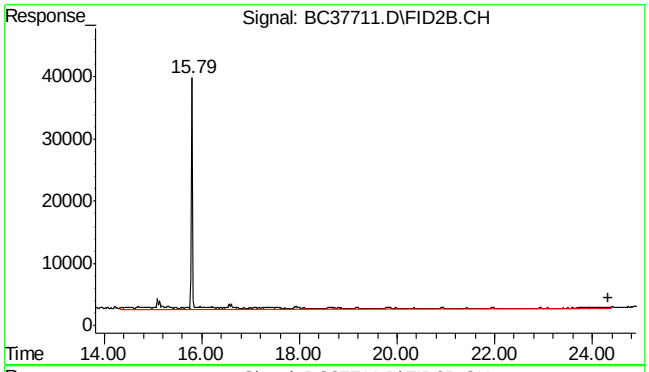
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 126639
Conc: 19.96 ppm m



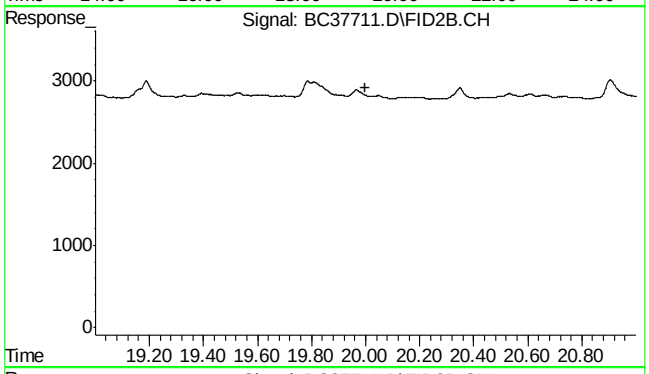
#35 1-chlorooctadecane

R.T.: 15.794 min
Delta R.T.: -0.002 min
Response: 54774
Conc: 11.95 ppm



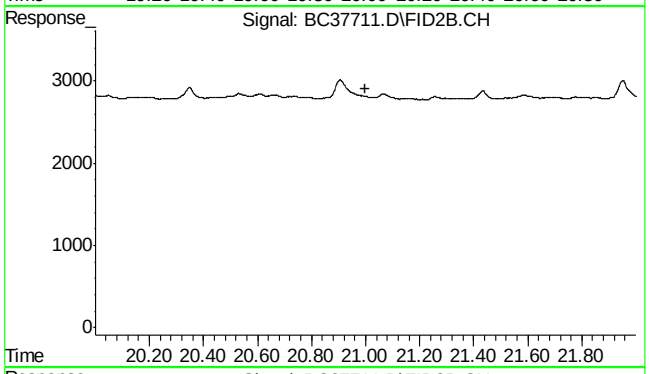
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 100460
Conc: 18.84 ppm m



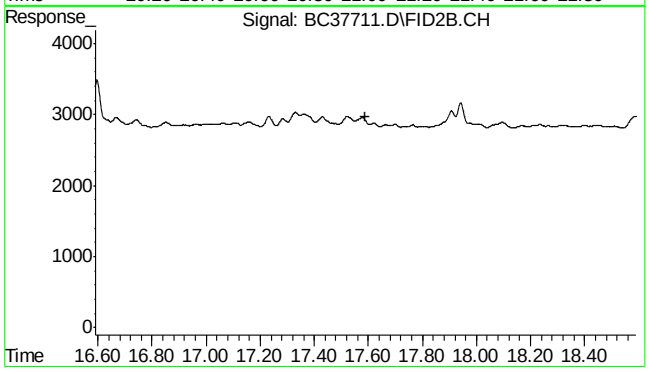
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37595.D\FID1A.CH Vial: 44
Signal #2 : C:\MSDCHEM\1\DATA\BC37595.D\FID2B.CH
Acq On : 3-11-10 05:54:24 AM Operator: KimD
Sample : f71731-5,op20804 Inst : GCBC
Misc : op20804,gbc1913,11.50,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 08:34:45 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	78609	13.957 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	69.79%
6) s 2-bromonaphthalene	10.45	50184	14.086 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	70.43%
11) s o-terphenyl	14.22	80036	11.630 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	58.15%
35) s 1-chlorooctadecane	15.79f	45365	10.013 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	50.07%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	118226	21.275 ppm
25) h c-9	3.81	194795	28.728 ppm
41) h c-36	24.33	438565	77.729 ppm

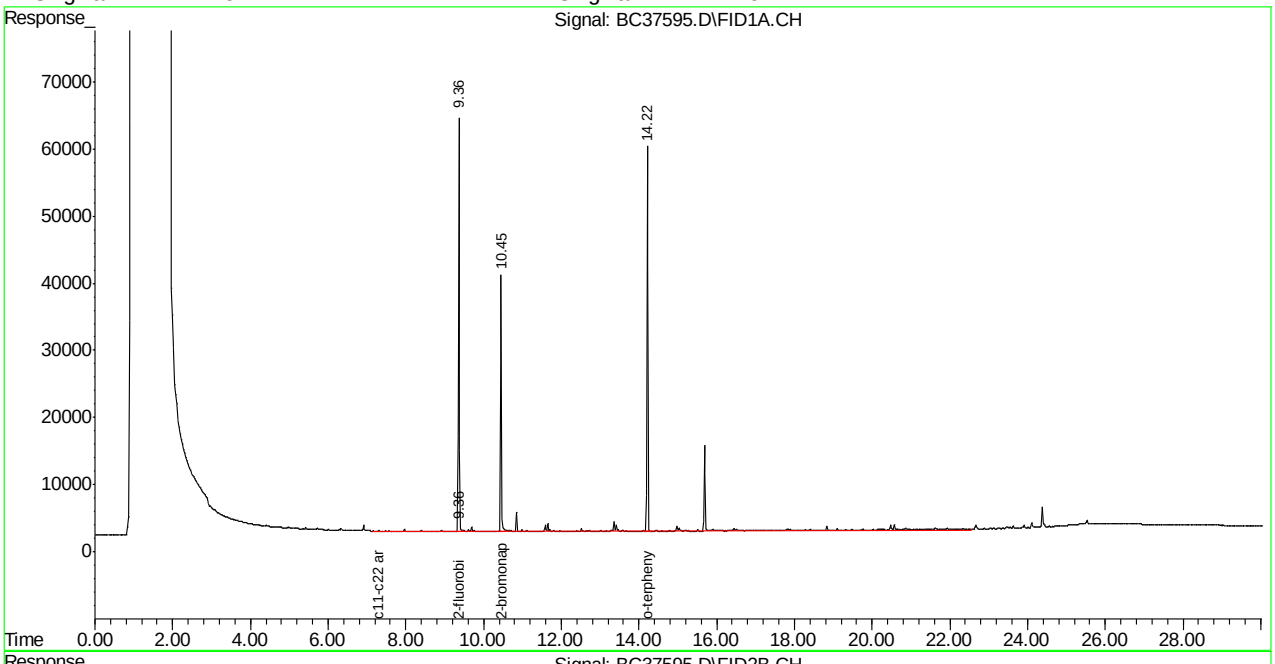
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37595.D EPH031010.M Thu Mar 11 14:09:25 2010 RPGEN1

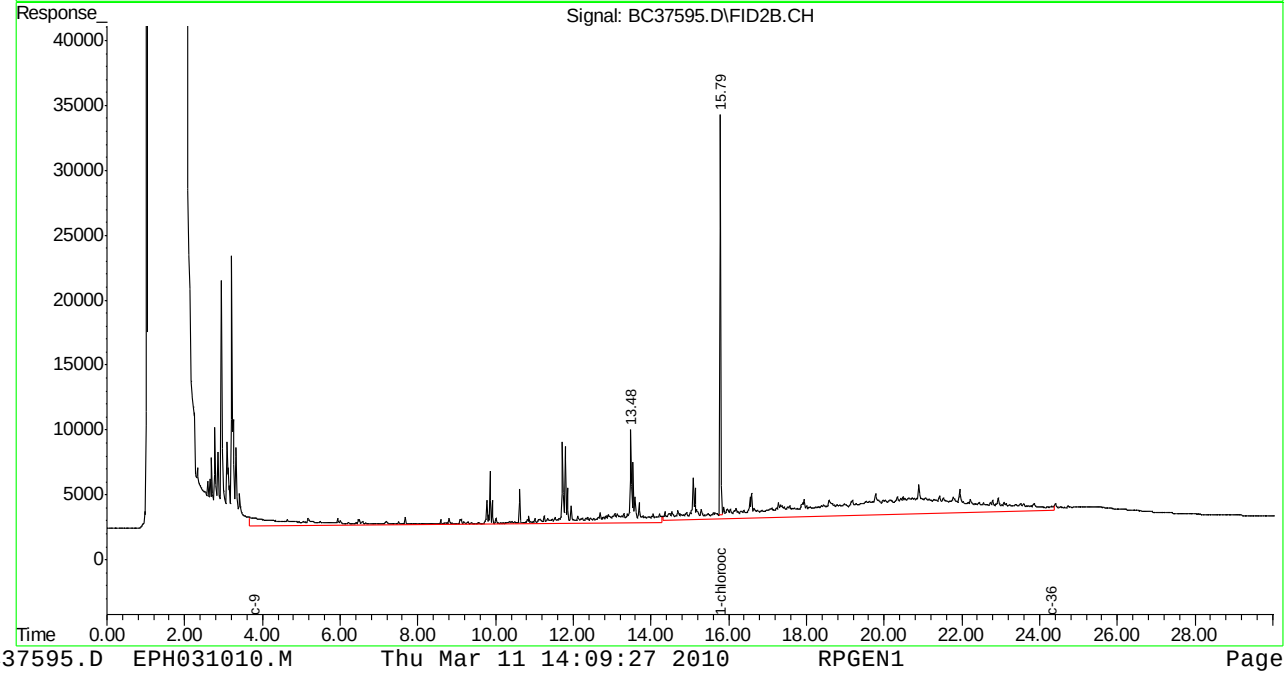
Quantitation Report (QT Reviewed)

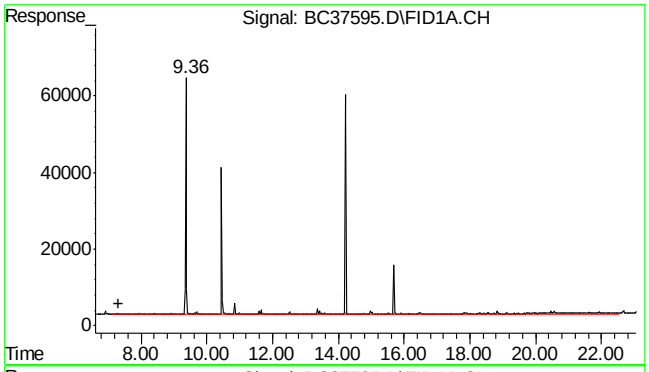
Signal #1 : C:\MSDCHEM\1\DATA\BC37595.D\FID1A.CH Vial: 44
Signal #2 : C:\MSDCHEM\1\DATA\BC37595.D\FID2B.CH
Acq On : 3-11-10 05:54:24 AM Operator: KimD
Sample : f71731-5,op20804 Inst : GCBC
Misc : op20804,gbc1913,11.50,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 10:58 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

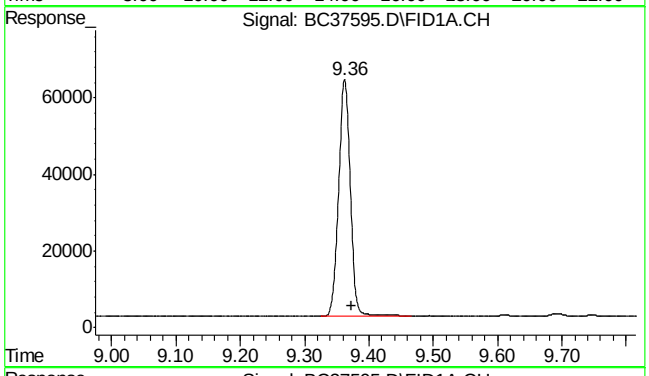






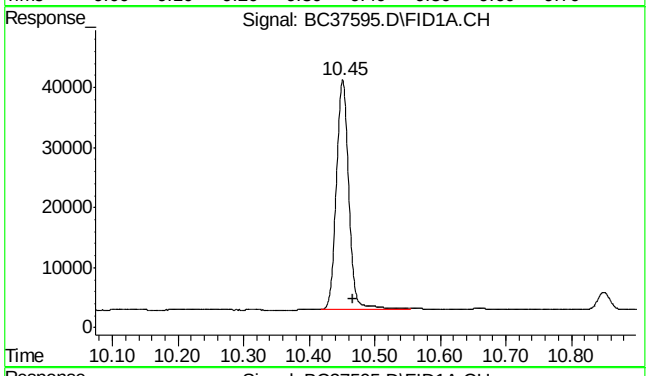
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 118226
Conc: 21.28 ppm m



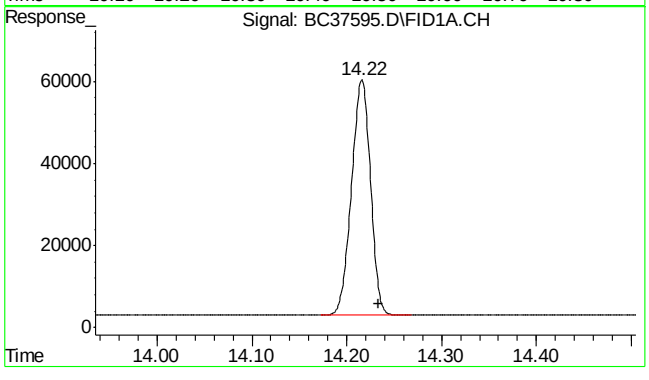
#4 2-fluorobiphenyl

R.T.: 9.363 min
Delta R.T.: -0.012 min
Response: 78609
Conc: 13.96 ppm



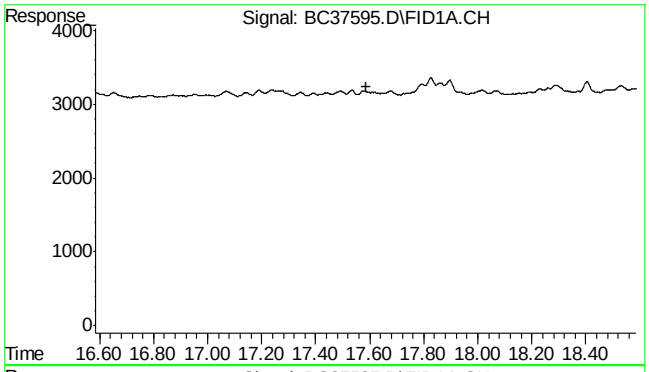
#6 2-bromonaphthalene

R.T.: 10.451 min
Delta R.T.: -0.016 min
Response: 50184
Conc: 14.09 ppm



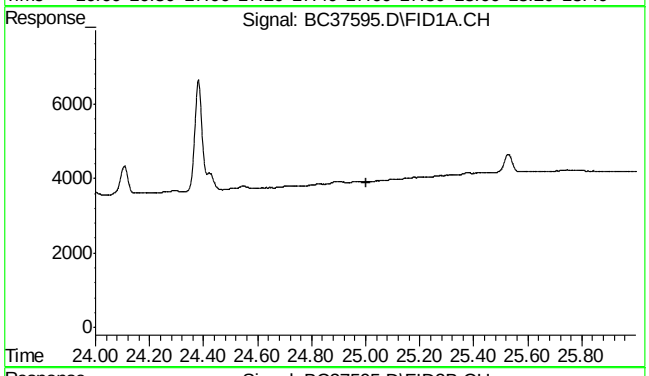
#11 o-terphenyl

R.T.: 14.216 min
Delta R.T.: -0.018 min
Response: 80036
Conc: 11.63 ppm



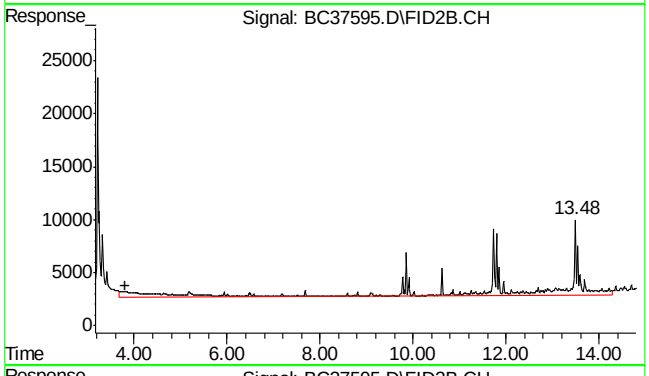
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



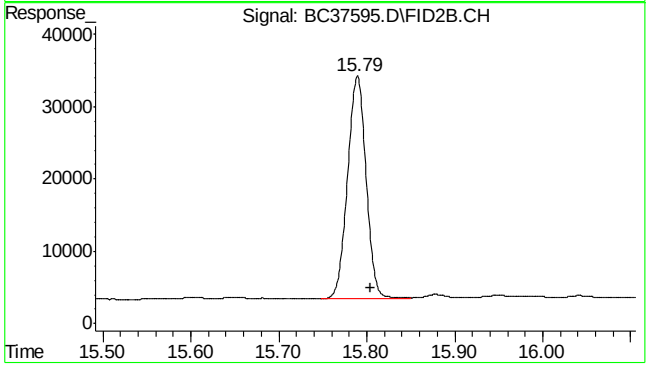
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



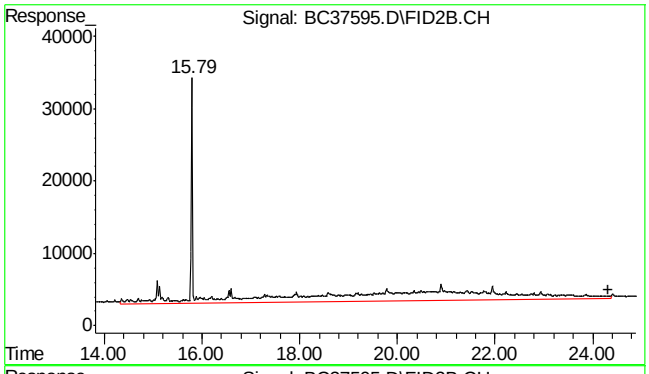
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 194795
Conc: 28.73 ppm m



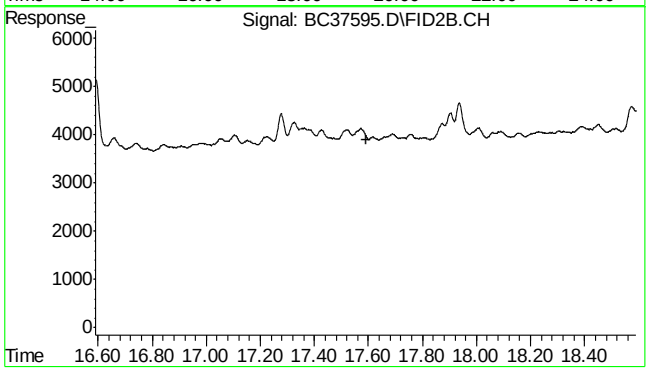
#35 1-chlorooctadecane

R.T.: 15.789 min
Delta R.T.: -0.016 min
Response: 45365
Conc: 10.01 ppm



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 438565
Conc: 77.73 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.1.5

10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37692.D\FID1A.CH Vial: 24
Signal #2 : C:\MSDCHEM\1\DATA\BC37692.D\FID2B.CH
Acq On : 3-16-10 08:29:40 PM Operator: KimD
Sample : f71731-6,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.75,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:20:46 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	93606	15.863 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	79.31%
6) s 2-bromonaphthalene	10.45	56024	14.795 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	73.98%
11) s o-terphenyl	14.22	100257	14.031 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	70.16%
35) s 1-chlorooctadecane	15.79	49110	10.712 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	53.56%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	114719	18.169 ppm
25) h c-9	3.81	133525	21.048 ppm
41) h c-36	24.33	125119	23.467 ppm

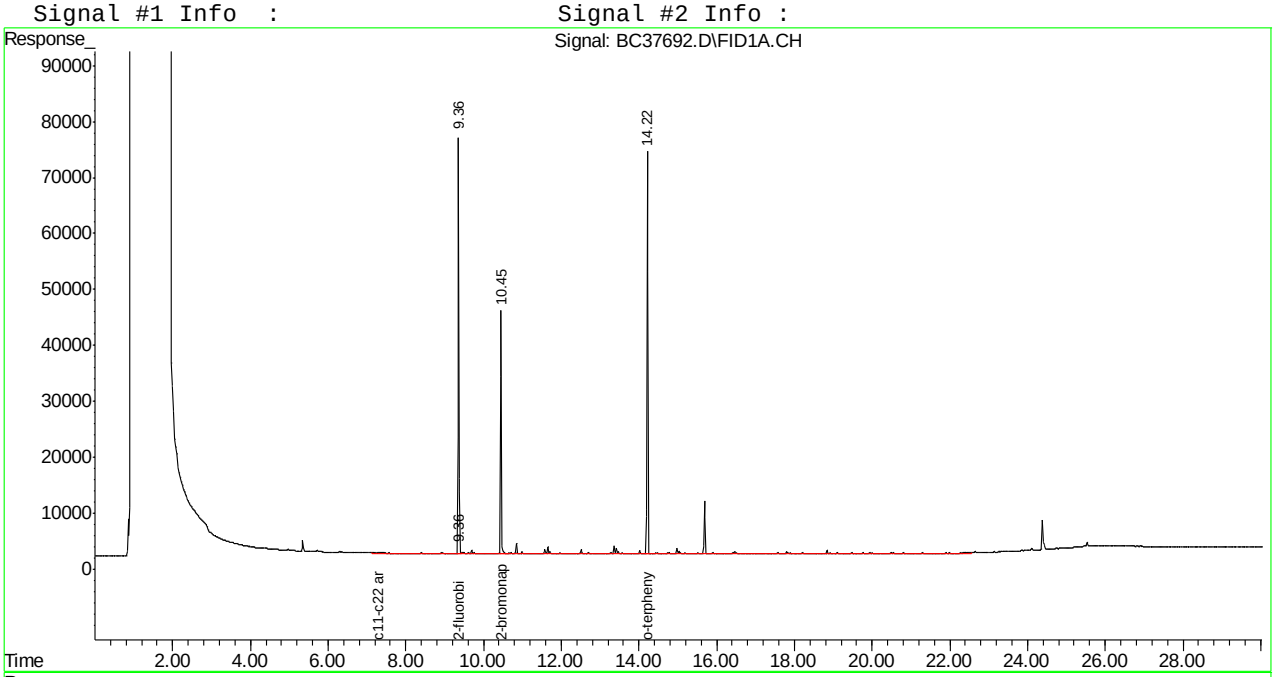
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37692.D EPH031510.M Wed Mar 17 09:23:31 2010 RPGEN1

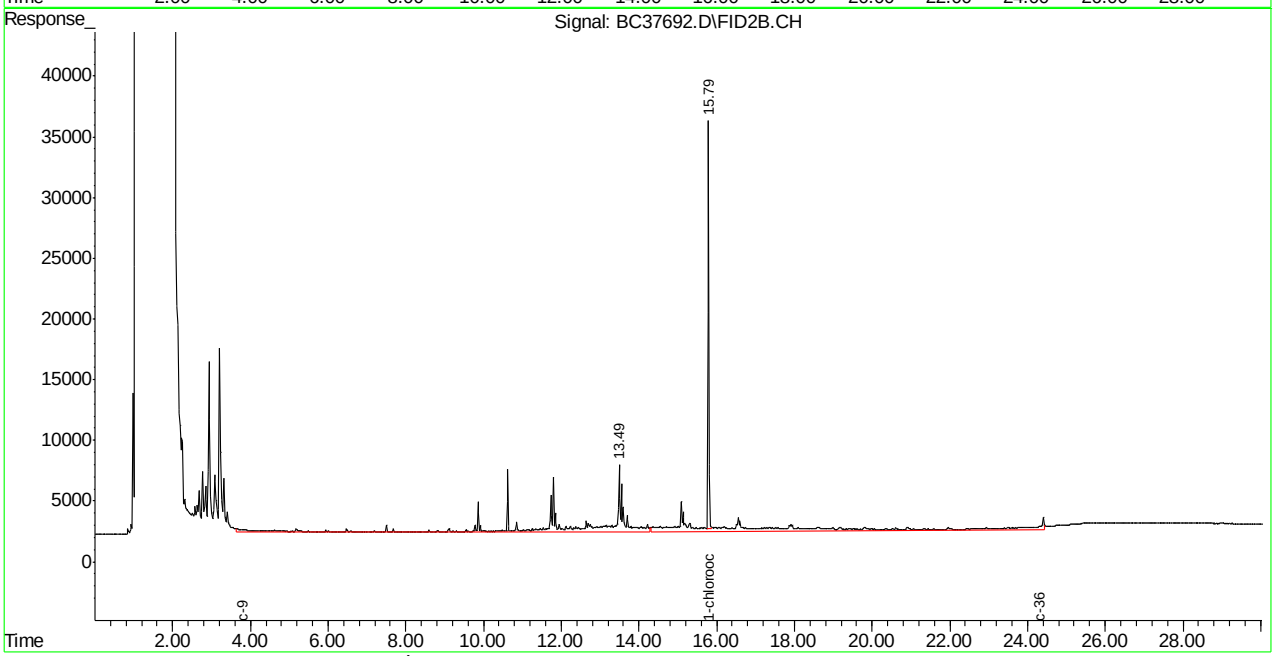
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37692.D\FID1A.CH Vial: 24
Signal #2 : C:\MSDCHEM\1\DATA\BC37692.D\FID2B.CH
Acq On : 3-16-10 08:29:40 PM Operator: KimD
Sample : f71731-6,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.75,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:50 2010 Quant Results File: EPH031510.RES

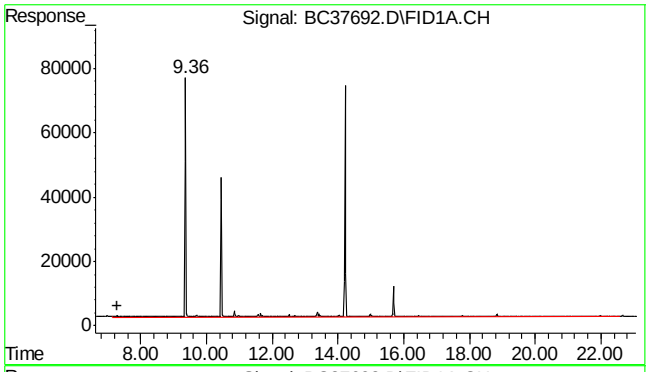
Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



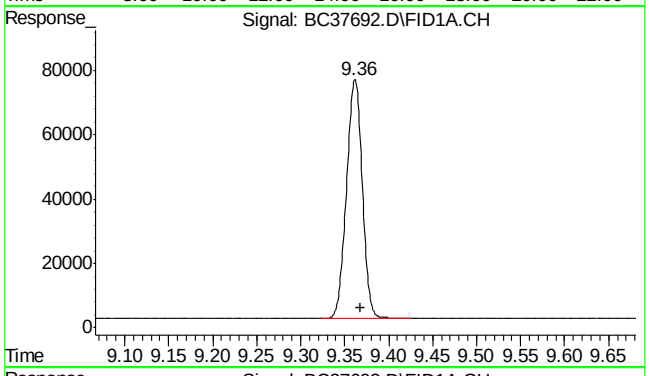


BC37692.D EPH031510.M Wed Mar 17 09:23:32 2010 RPGEN1 Page 2



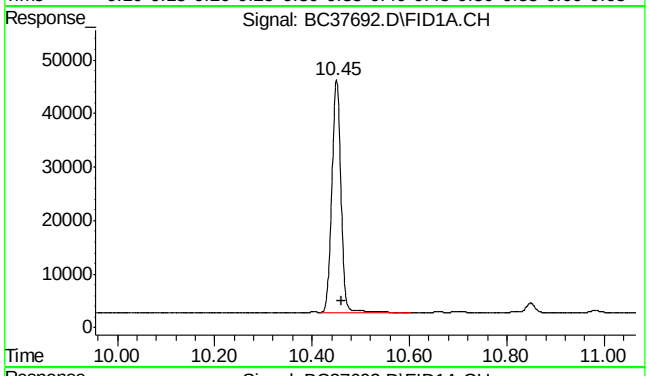
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 114719
Conc: 18.17 ppm m



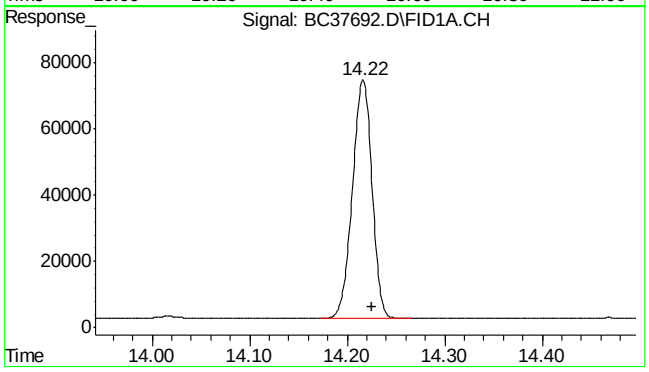
#4 2-fluorobiphenyl

R.T.: 9.361 min
Delta R.T.: -0.008 min
Response: 93606
Conc: 15.86 ppm



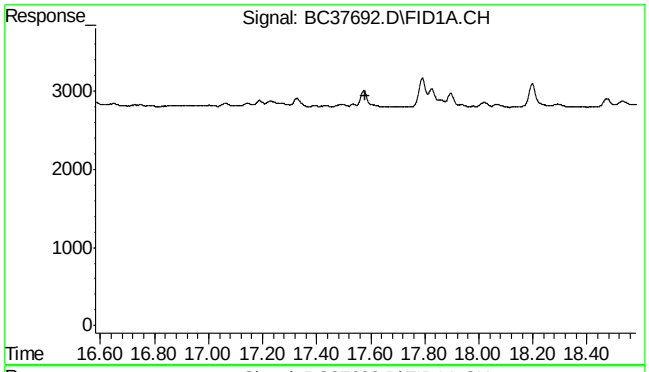
#6 2-bromonaphthalene

R.T.: 10.450 min
Delta R.T.: -0.010 min
Response: 56024
Conc: 14.80 ppm



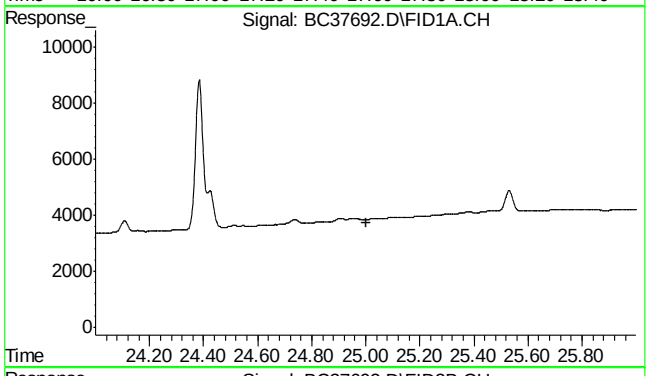
#11 o-terphenyl

R.T.: 14.216 min
Delta R.T.: -0.009 min
Response: 100257
Conc: 14.03 ppm



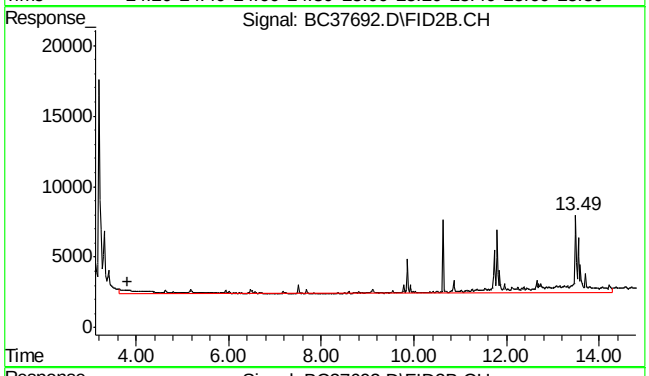
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



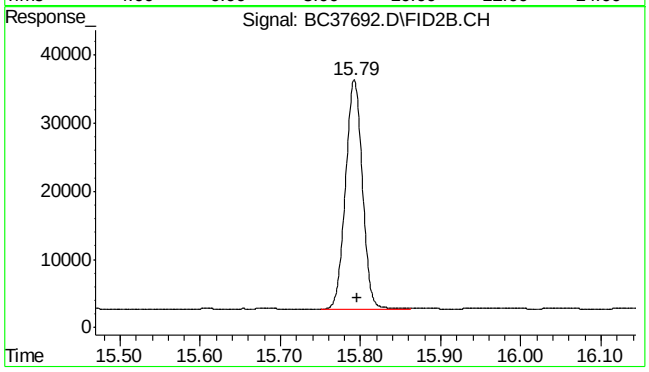
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



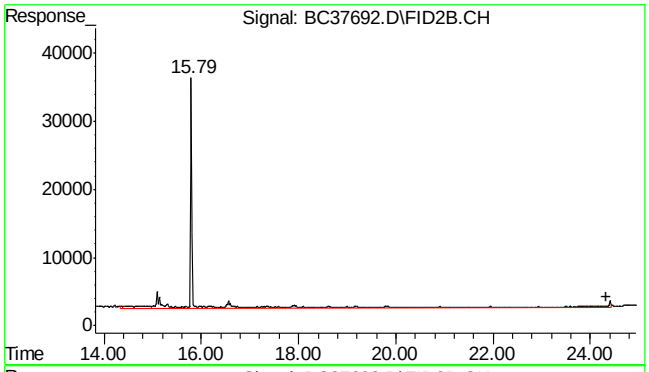
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 133525
Conc: 21.05 ppm m



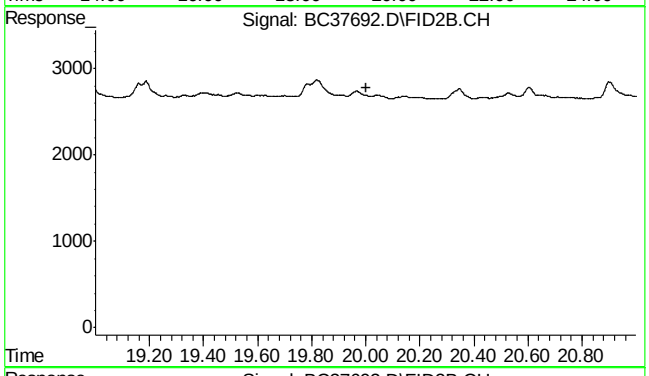
#35 1-chlorooctadecane

R.T.: 15.792 min
Delta R.T.: -0.004 min
Response: 49110
Conc: 10.71 ppm



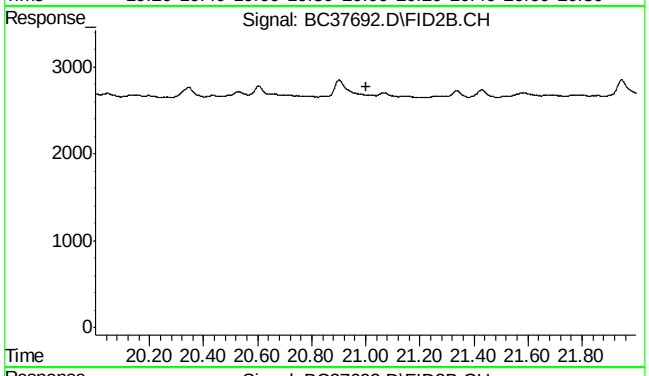
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 125119
Conc: 23.47 ppm m



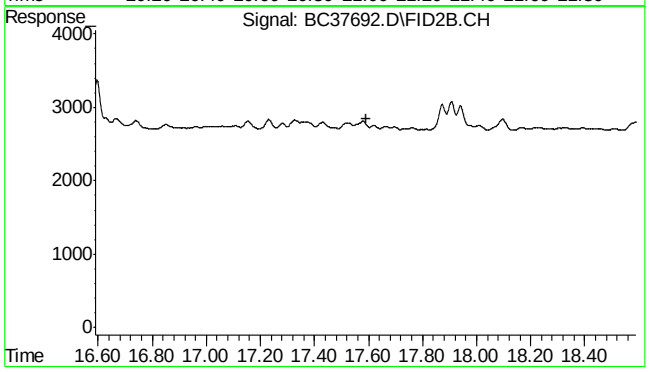
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37693.D\FID1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\BC37693.D\FID2B.CH
Acq On : 3-16-10 09:09:05 PM Operator: KimD
Sample : f71731-7,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.35,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:21:00 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	93300	15.811 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	79.05%
6) s 2-bromonaphthalene	10.45	50148	13.244 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	66.22%
11) s o-terphenyl	14.22	107746	15.079 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	75.39%
35) s 1-chlorooctadecane	15.79	57305	12.500 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	62.50%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	143581	22.740 ppm
25) h c-9	3.81	164165	25.878 ppm
41) h c-36	24.33	616259	115.582 ppm

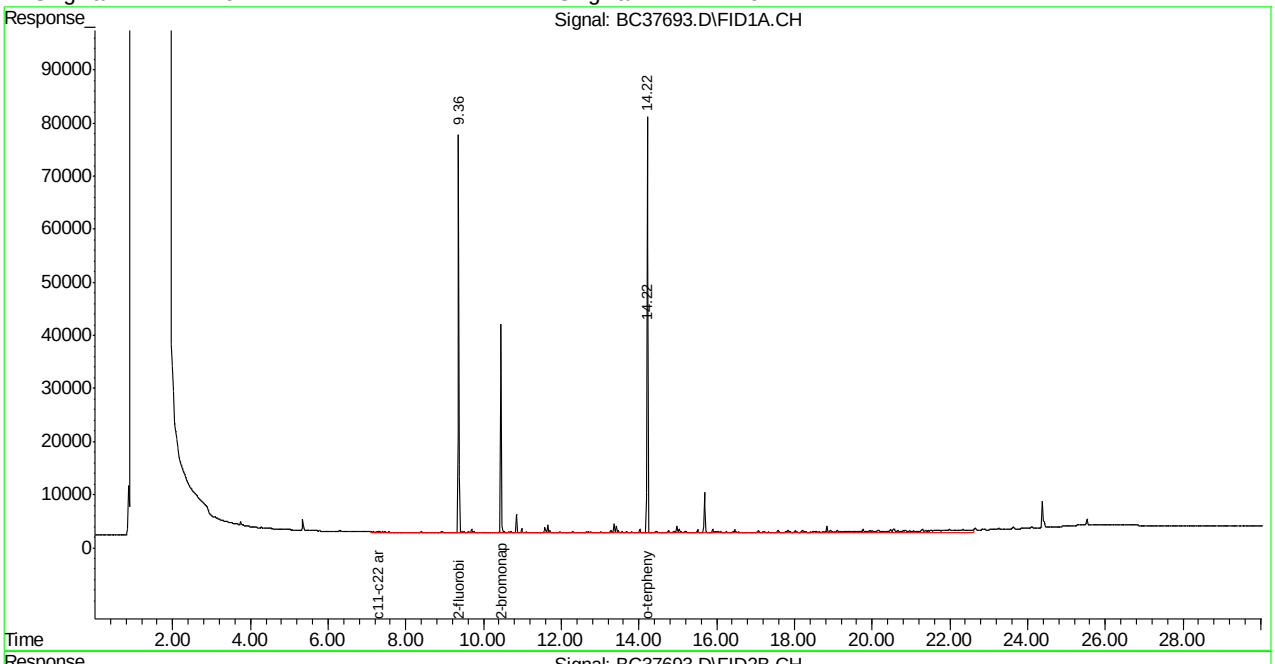
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37693.D EPH031510.M Wed Mar 17 09:23:38 2010 RPGEN1

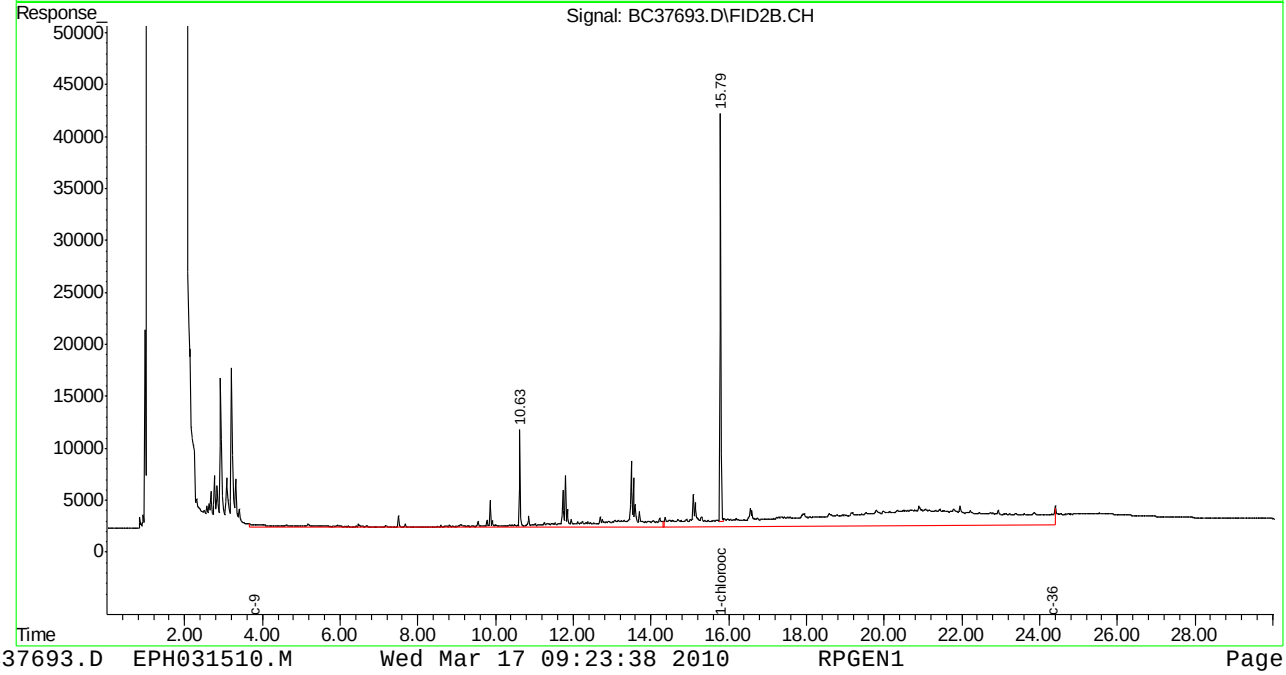
Quantitation Report (QT Reviewed)

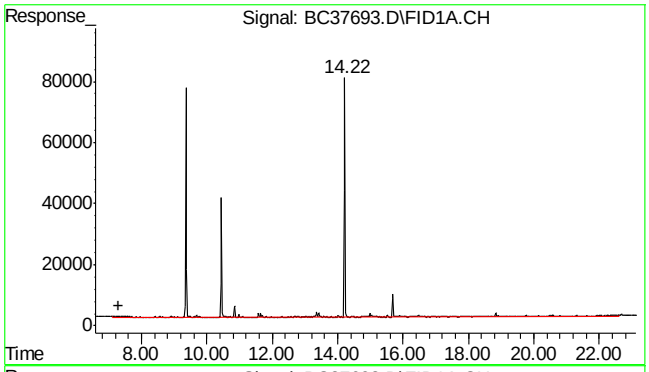
Signal #1 : C:\MSDCHEM\1\DATA\BC37693.D\FID1A.CH Vial: 26
Signal #2 : C:\MSDCHEM\1\DATA\BC37693.D\FID2B.CH
Acq On : 3-16-10 09:09:05 PM Operator: KimD
Sample : f71731-7,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.35,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:52 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

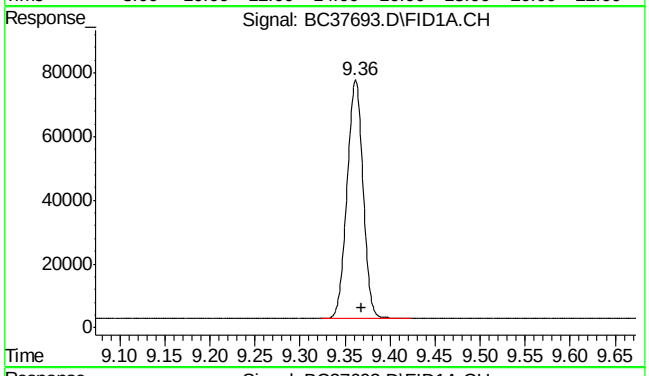






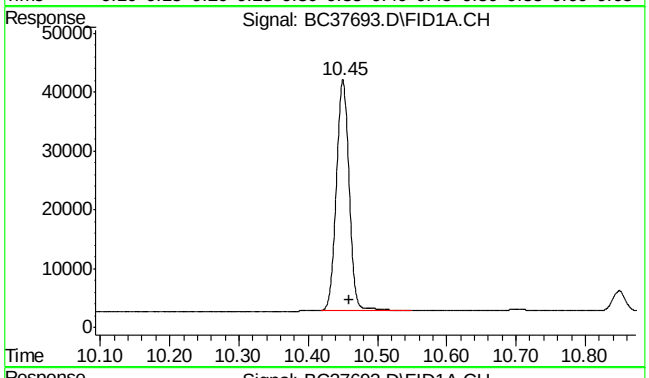
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 143581
Conc: 22.74 ppm m



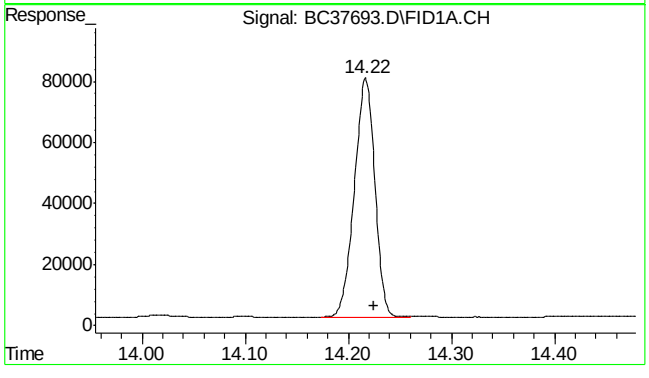
#4 2-fluorobiphenyl

R.T.: 9.361 min
Delta R.T.: -0.007 min
Response: 93300
Conc: 15.81 ppm



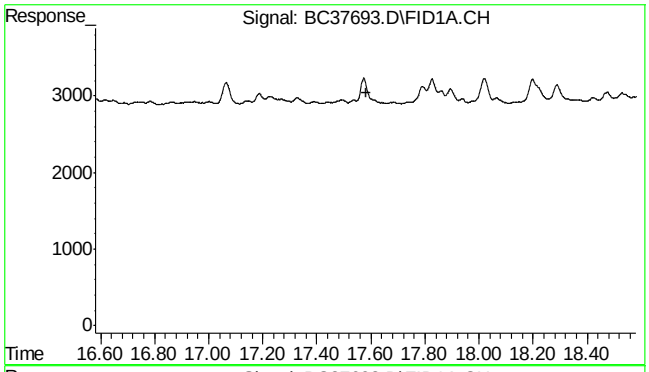
#6 2-bromonaphthalene

R.T.: 10.451 min
Delta R.T.: -0.010 min
Response: 50148
Conc: 13.24 ppm



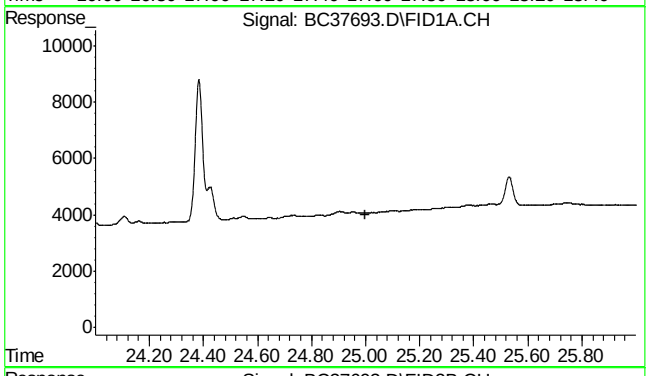
#11 o-terphenyl

R.T.: 14.216 min
Delta R.T.: -0.009 min
Response: 107746
Conc: 15.08 ppm



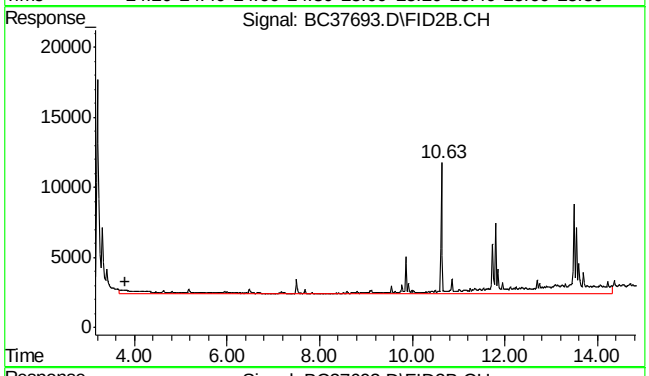
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



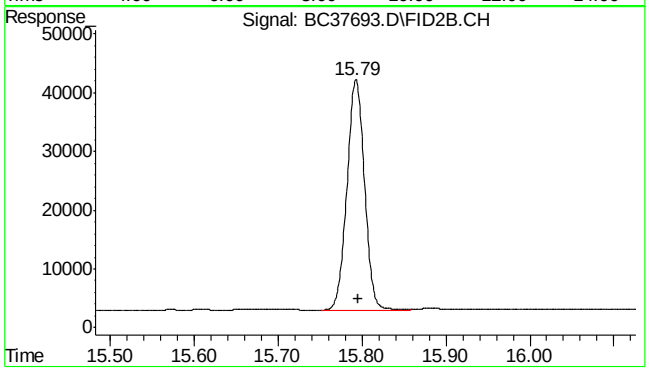
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



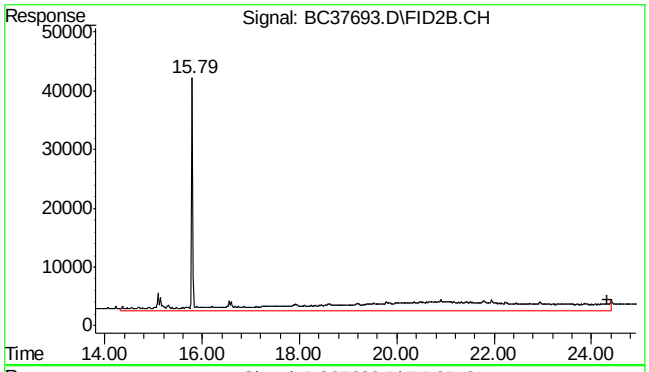
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 164165
Conc: 25.88 ppm m



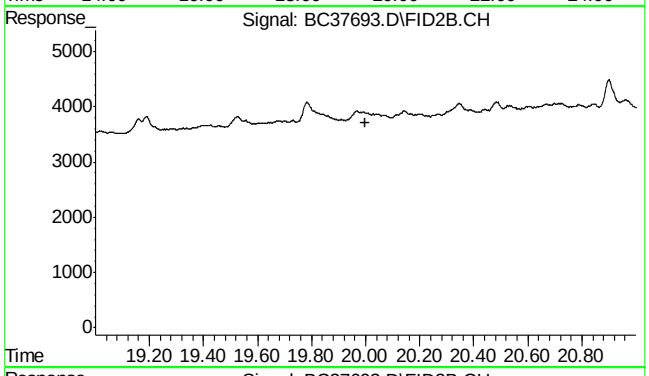
#35 1-chlorooctadecane

R.T.: 15.792 min
Delta R.T.: -0.004 min
Response: 57305
Conc: 12.50 ppm



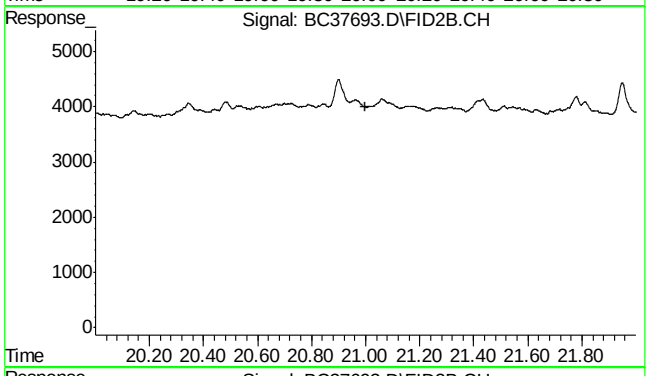
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 616259
Conc: 115.58 ppm m



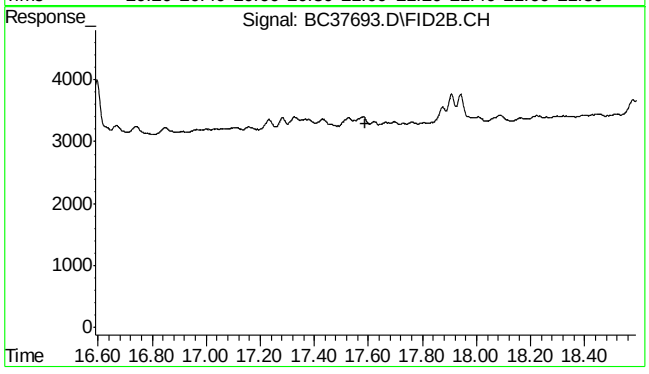
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 03/18/10 09:47

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37694.D\FID1A.CH          Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\BC37694.D\FID2B.CH
Acq On    : 3-16-10 09:48:43 PM                      Operator: KimD
Sample    : f71731-8,op20804                         Inst    : GCBC
Misc      : op20804,gbc1917,11.25,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:21:11 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	92599	15.692 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	78.46%
6) s 2-bromonaphthalene	10.45	54295	14.339 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	71.69%
11) s o-terphenyl	14.22	103753	14.520 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	72.60%
35) s 1-chlorooctadecane	15.79	56670	12.361 ppm m
Spiked Amount 20.000 Range 40 - 140		Recovery =	61.81%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	164411	26.039 ppm
25) h c-9	3.81	176587	27.836 ppm
41) h c-36	24.33	474293	88.956 ppm

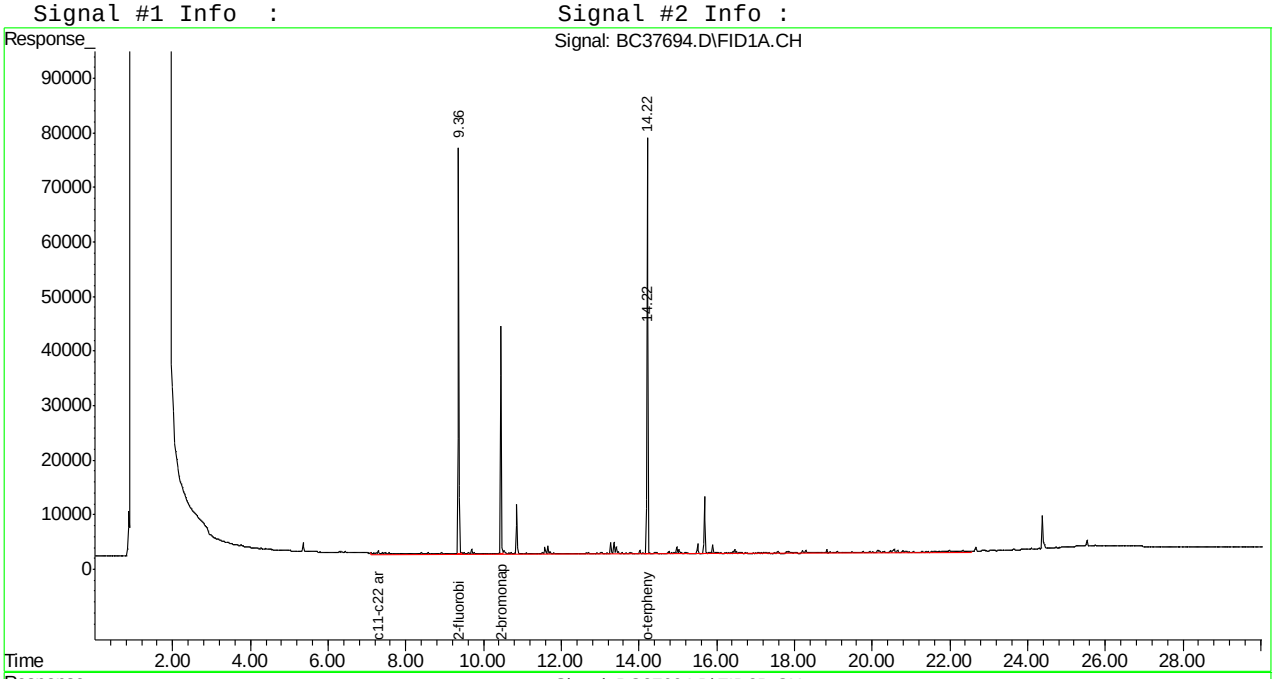
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37694.D EPH031510.M Wed Mar 17 09:23:44 2010 RPGEN1

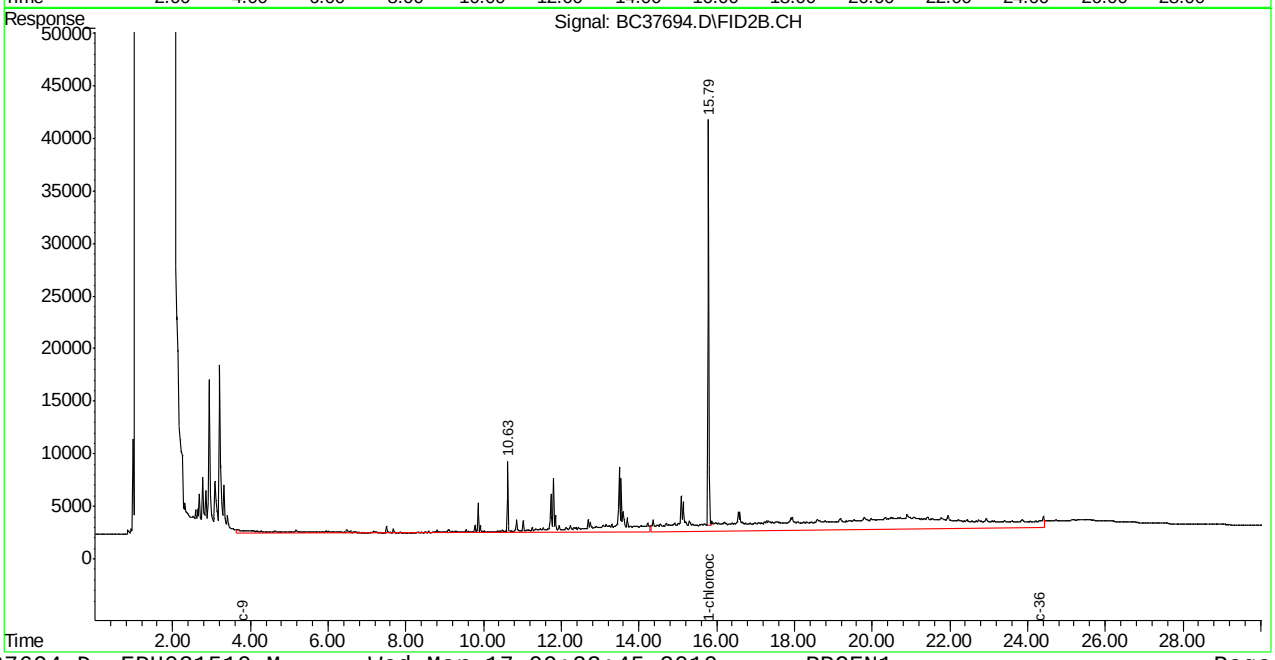
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37694.D\FID1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\BC37694.D\FID2B.CH
Acq On : 3-16-10 09:48:43 PM Operator: KimD
Sample : f71731-8,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.25,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:54 2010 Quant Results File: EPH031510.RES

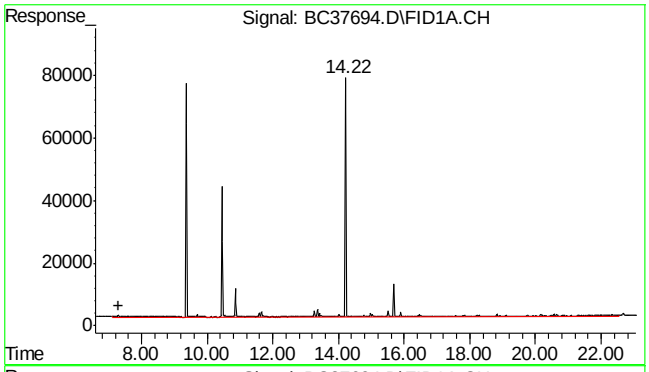
Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



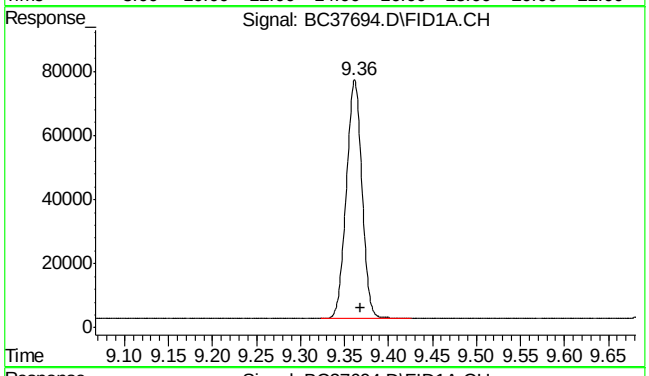


ACCUTEST Laboratories F71731



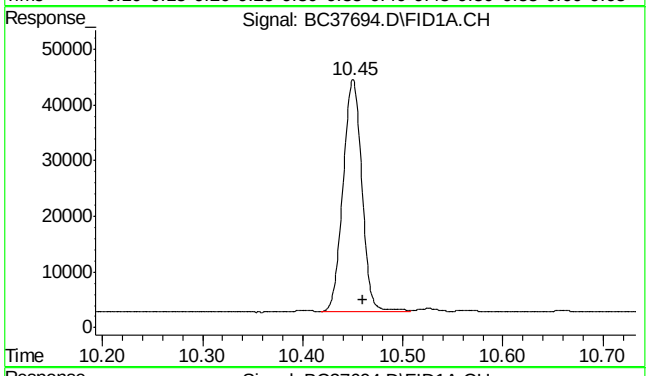
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 164411
Conc: 26.04 ppm m



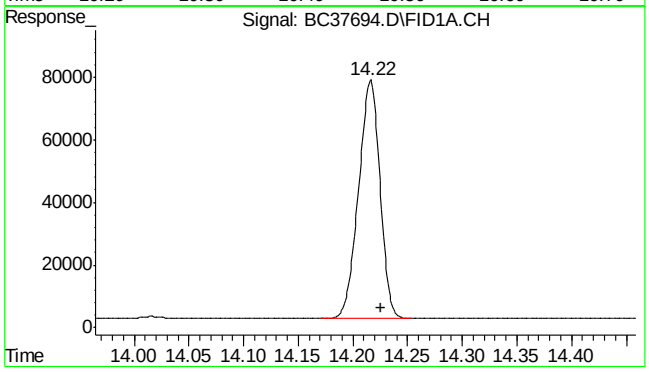
#4 2-fluorobiphenyl

R.T.: 9.361 min
Delta R.T.: -0.007 min
Response: 92599
Conc: 15.69 ppm



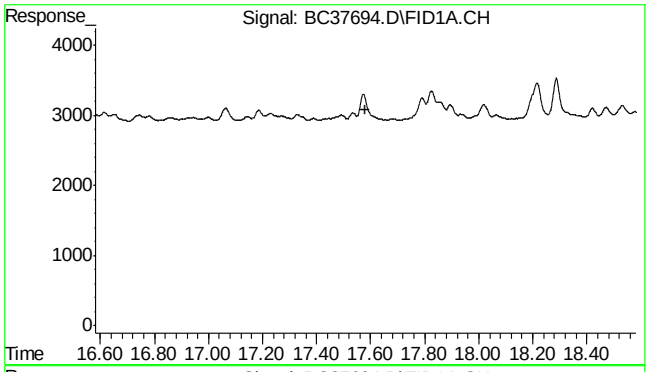
#6 2-bromonaphthalene

R.T.: 10.450 min
Delta R.T.: -0.010 min
Response: 54295
Conc: 14.34 ppm



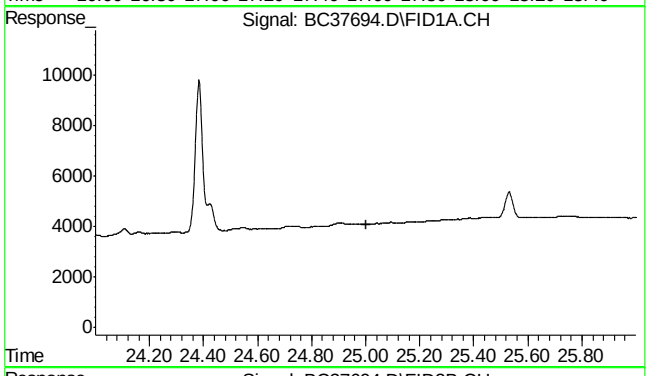
#11 o-terphenyl

R.T.: 14.216 min
Delta R.T.: -0.009 min
Response: 103753
Conc: 14.52 ppm



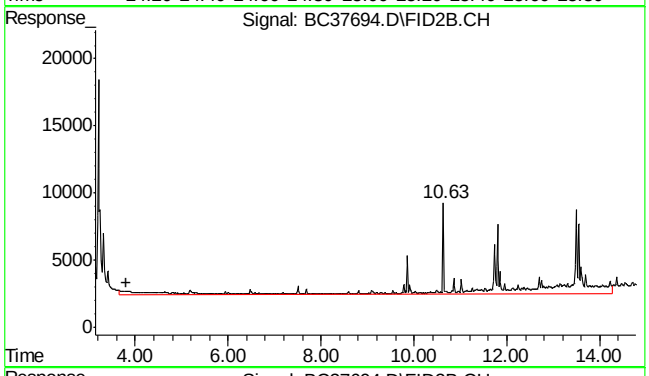
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



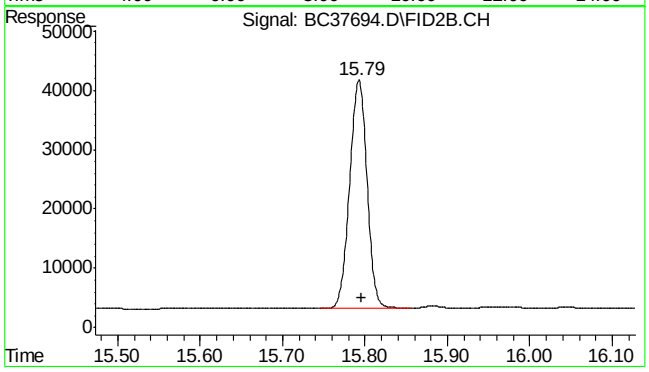
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



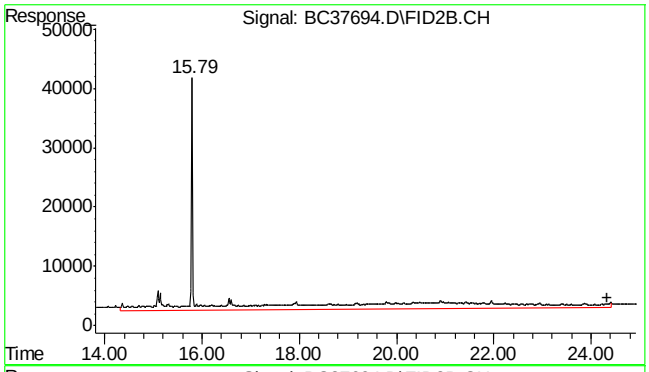
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 176587
Conc: 27.84 ppm m



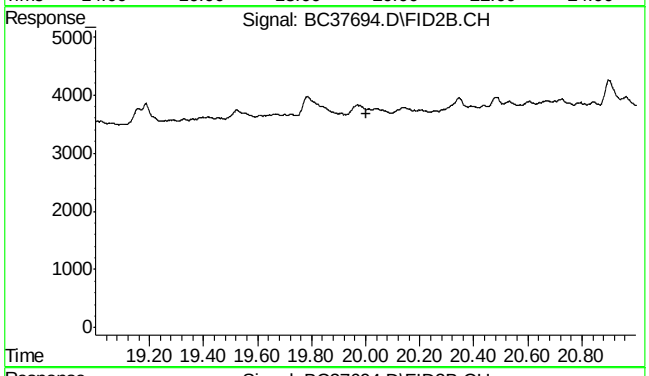
#35 1-chlorooctadecane

R.T.: 15.793 min
Delta R.T.: -0.003 min
Response: 56670
Conc: 12.36 ppm m



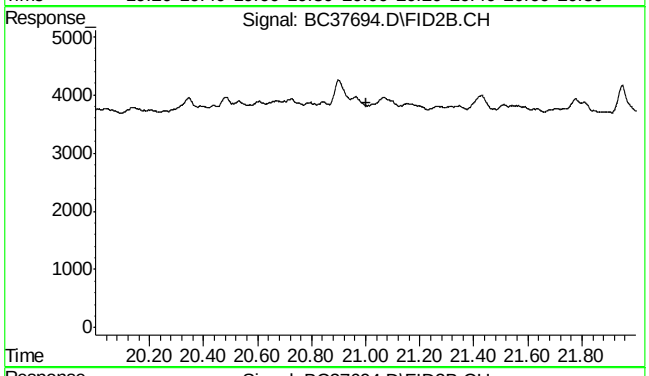
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 474293
Conc: 88.96 ppm m



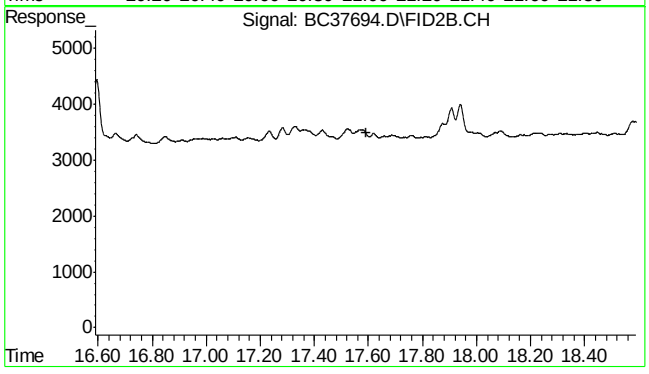
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/18/10 09:47

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37695.D\FID1A.CH          Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\BC37695.D\FID2B.CH
Acq On    : 16 Mar 2010  10:28 pm                    Operator: KimD
Sample    : f71731-9,op20804                         Inst    : GCBC
Misc      : op20804,gbc1917,11.40,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:21:25 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	91589	15.521 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	77.61%
6) s 2-bromonaphthalene	10.45	52669	13.909 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	69.55%
11) s o-terphenyl	14.21	60249	8.432 ppm
Spiked Amount 20.000	Range 40 - 140	Recovery =	42.16%
35) s 1-chlorooctadecane	15.79	32732	7.140 ppm m
Spiked Amount 20.000	Range 40 - 140	Recovery =	35.70%#
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	129127	20.451 ppm
25) h c-9	3.81	140759	22.189 ppm
41) h c-36	24.33	436396	81.848 ppm

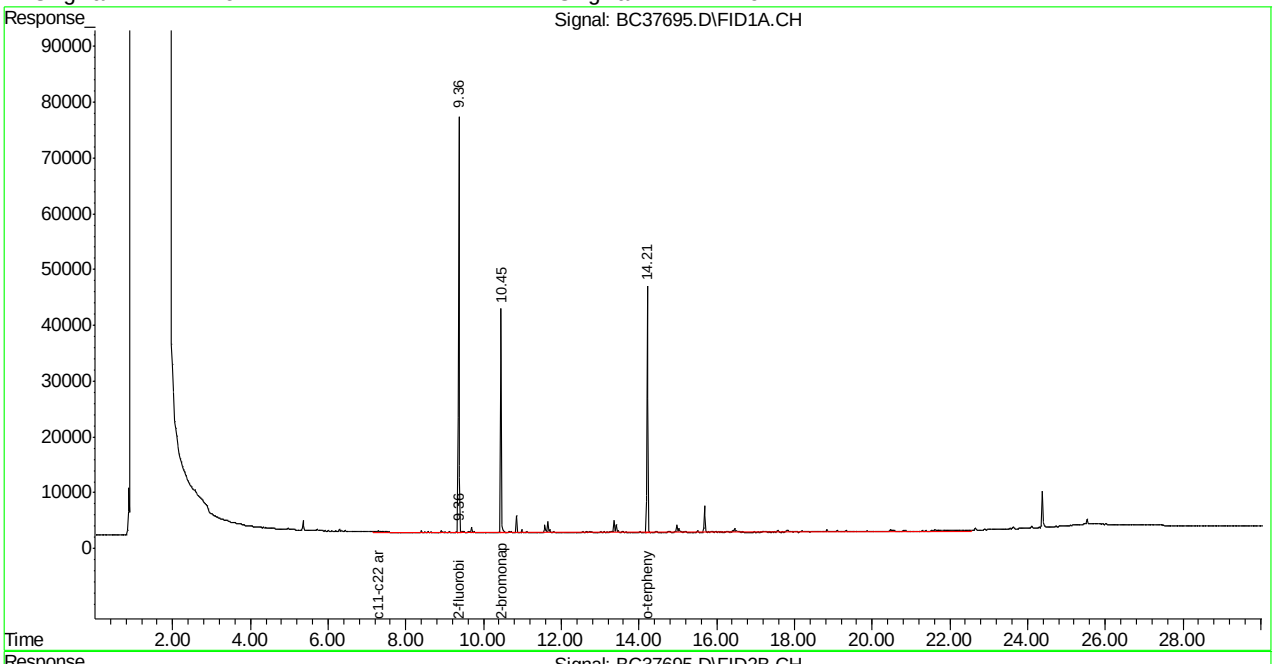
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37695.D EPH031510.M Wed Mar 17 09:23:51 2010 RPGEN1

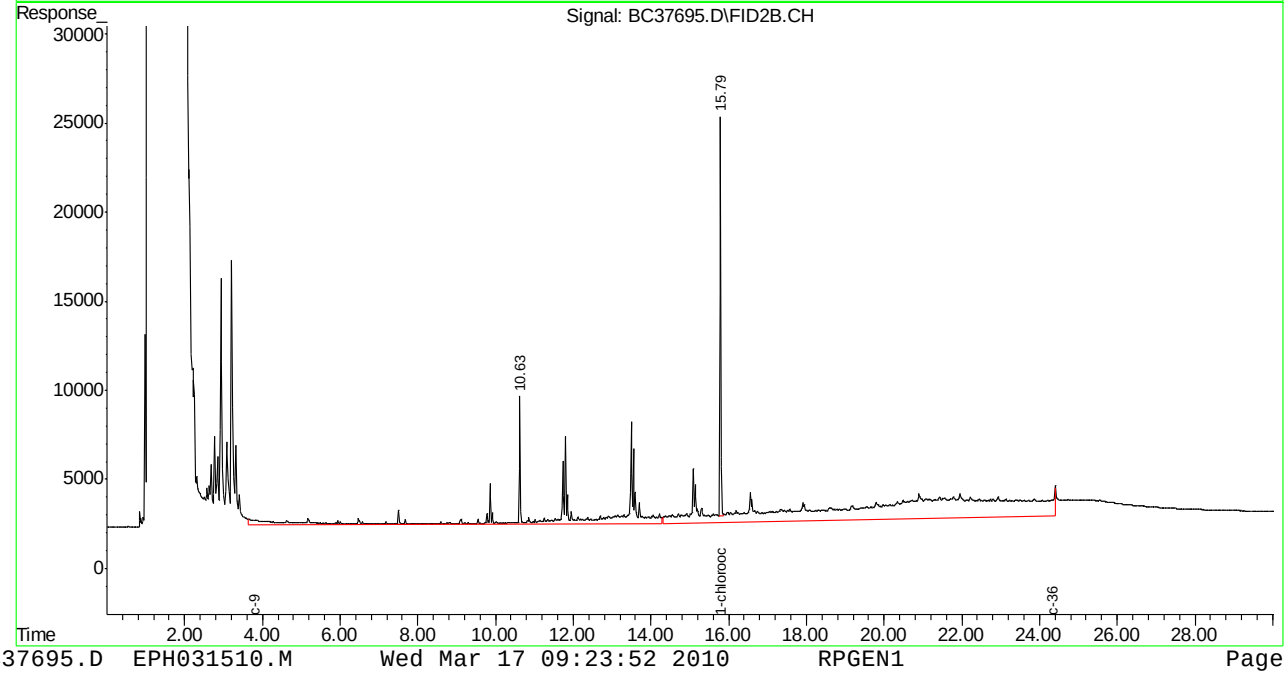
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37695.D\FID1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\1\DATA\BC37695.D\FID2B.CH
Acq On : 16 Mar 2010 10:28 pm Operator: KimD
Sample : f71731-9,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.40,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:56 2010 Quant Results File: EPH031510.RES

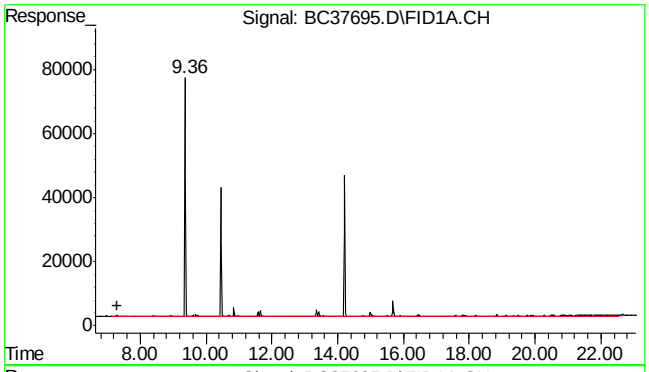
Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



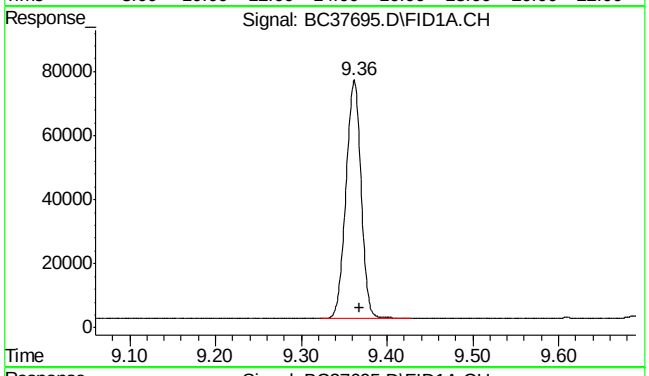


ACCUTEST Laboratories F71731



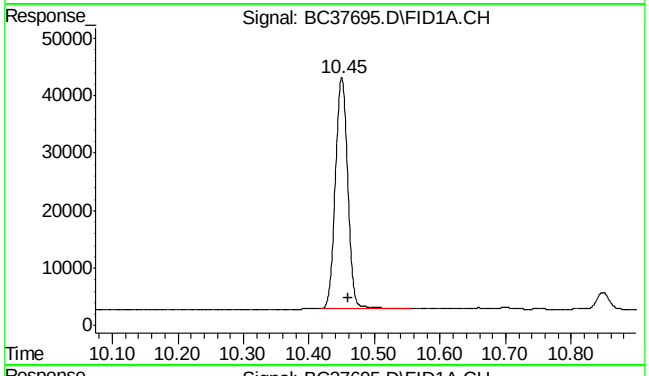
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 129127
Conc: 20.45 ppm m



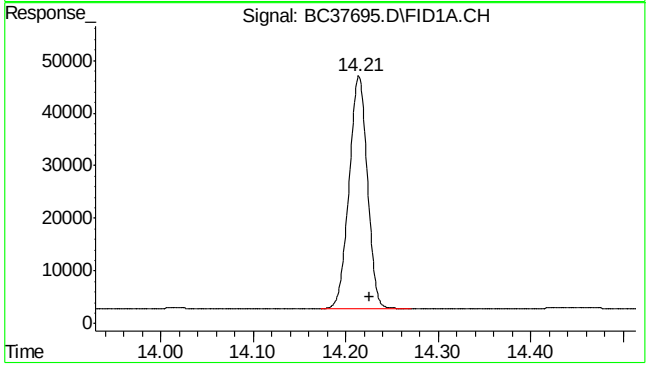
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 91589
Conc: 15.52 ppm



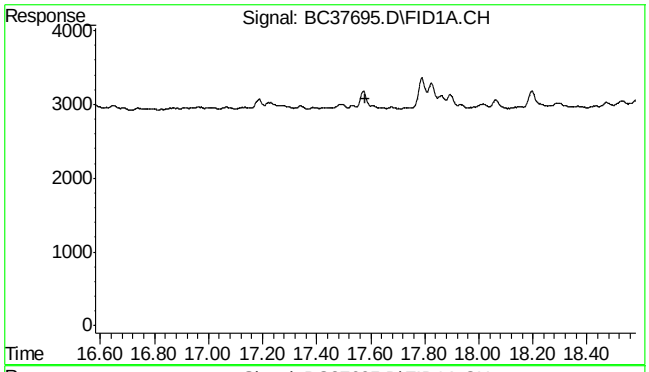
#6 2-bromonaphthalene

R.T.: 10.449 min
Delta R.T.: -0.011 min
Response: 52669
Conc: 13.91 ppm



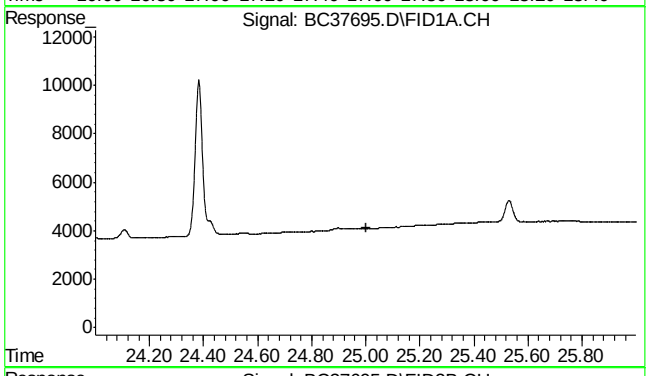
#11 o-terphenyl

R.T.: 14.213 min
Delta R.T.: -0.012 min
Response: 60249
Conc: 8.43 ppm



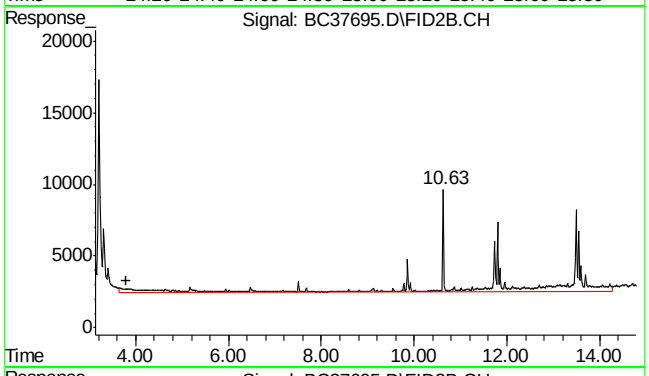
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



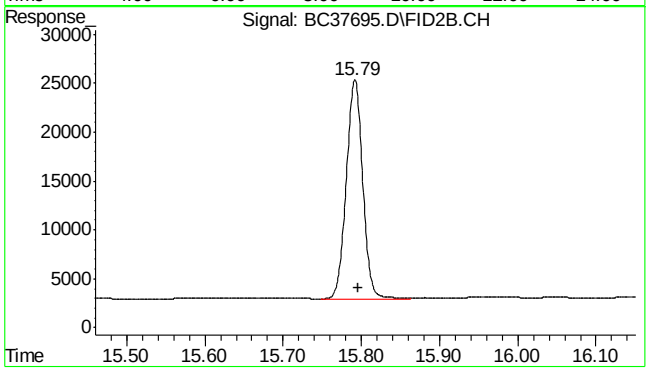
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



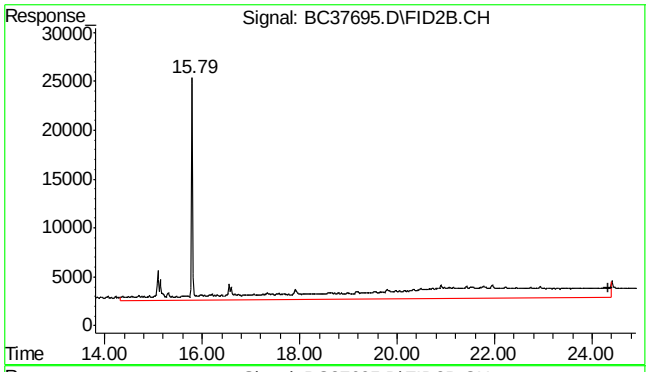
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 140759
Conc: 22.19 ppm m



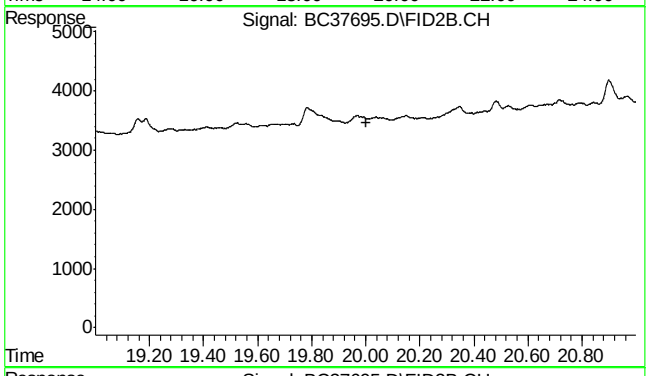
#35 1-chlorooctadecane

R.T.: 15.792 min
Delta R.T.: -0.004 min
Response: 32732
Conc: 7.14 ppm m



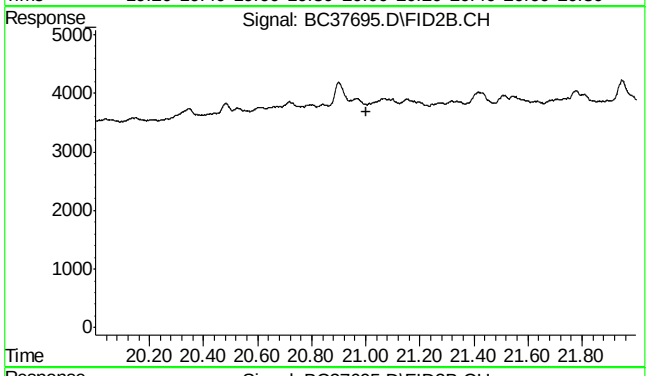
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 436396
Conc: 81.85 ppm m



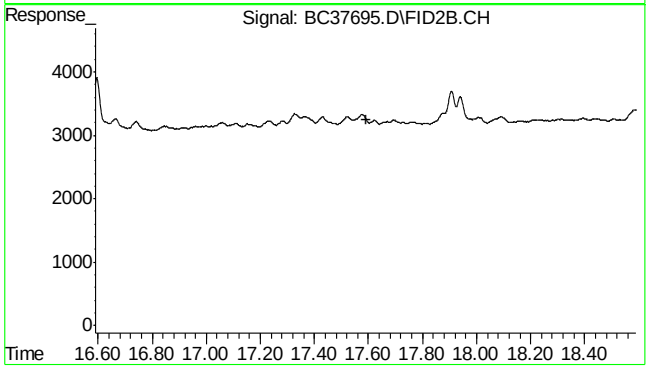
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/18/10 09:47

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37697.D\FID1A.CH          Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\BC37697.D\FID2B.CH
Acq On    : 16 Mar 2010  11:47 pm                    Operator: KimD
Sample    : f71731-10,op20804                        Inst    : GCBC
Misc      : op20804,gbc1917,11.20,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:21:57 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	97717	16.559 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	82.80%
6) s 2-bromonaphthalene	10.45	55114	14.555 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	72.78%
11) s o-terphenyl	14.22	117990	16.512 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	82.56%
35) s 1-chlorooctadecane	15.79	64164	13.996 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	69.98%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	541823	85.812 ppm
16) benzo(b)fluoranthene	20.14f	11364	1.902 ppm m
17) benzo(k)fluoranthene	20.17f	8441	1.301 ppm m
18) benzo(a)pyrene	20.64f	7778	1.259 ppm
25) h c-9	3.81	141224	22.262 ppm
41) h c-36	24.33	232899	43.681 ppm

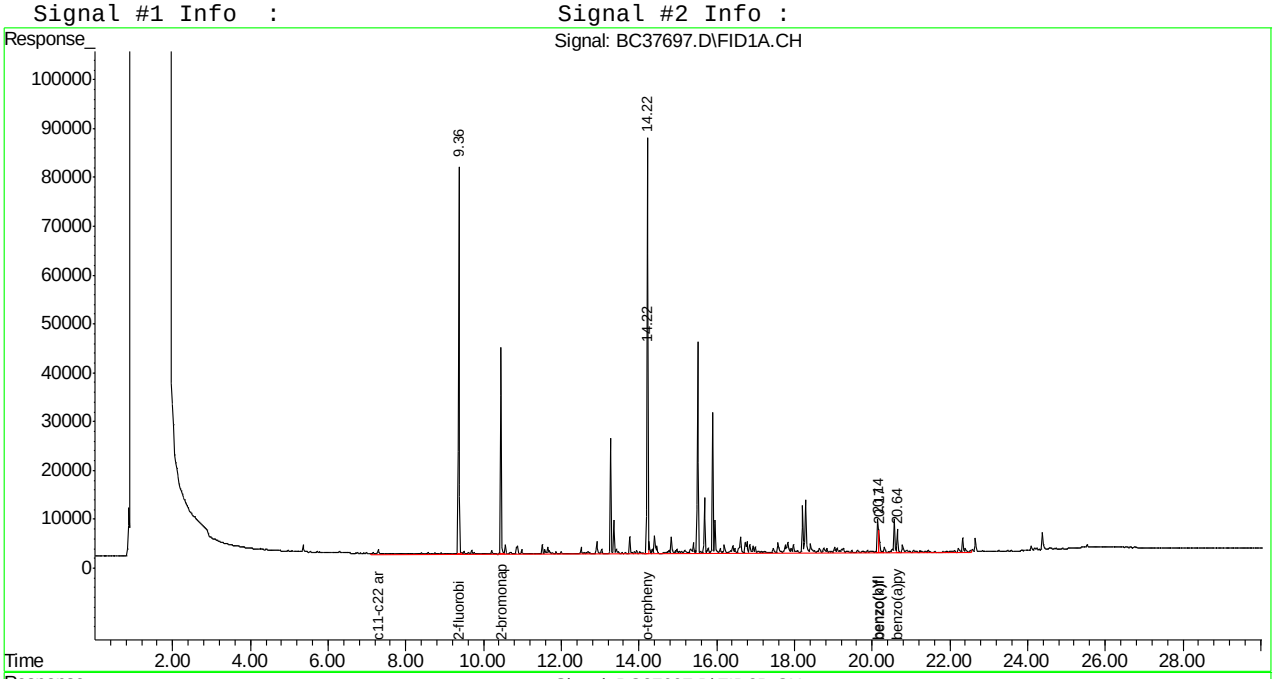
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37697.D EPH031510.M Wed Mar 17 09:24:14 2010 RPGEN1

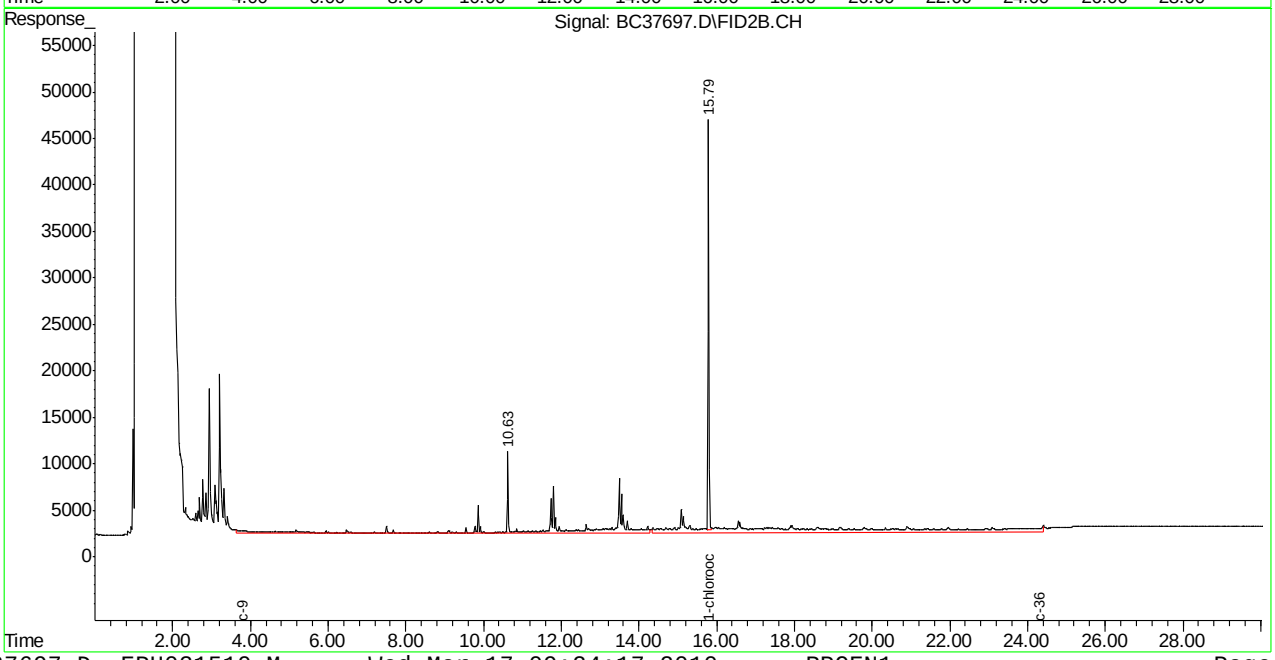
Quantitation Report (QT Reviewed)

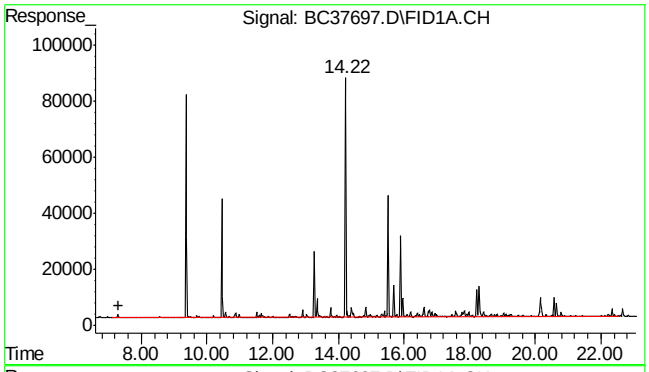
Signal #1 : C:\MSDCHEM\1\DATA\BC37697.D\FID1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\BC37697.D\FID2B.CH
Acq On : 16 Mar 2010 11:47 pm Operator: KimD
Sample : f71731-10,op20804 Inst : GCBC
Misc : op20804,gbc1917,11.20,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:58 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

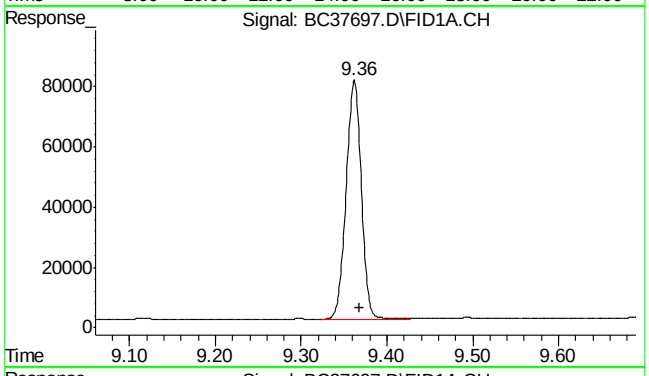






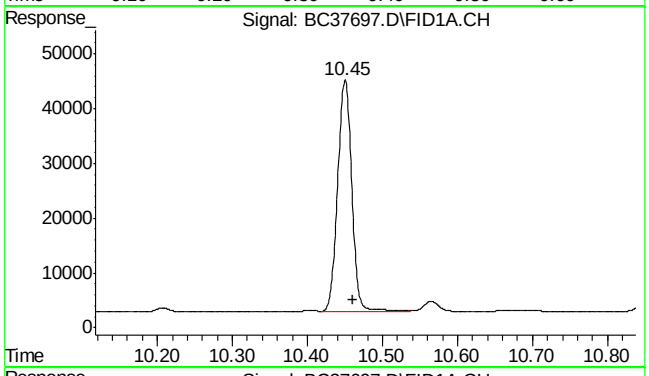
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 541823
Conc: 85.81 ppm m



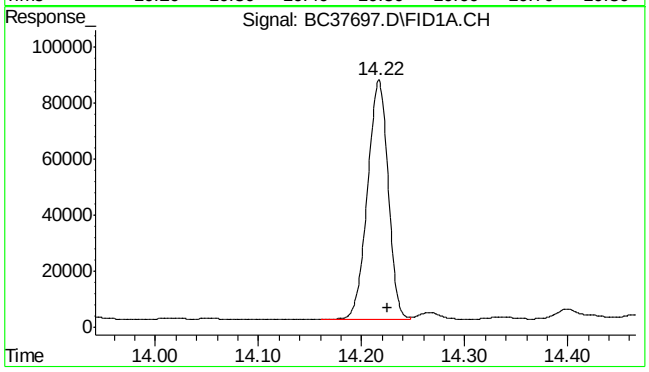
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 97717
Conc: 16.56 ppm



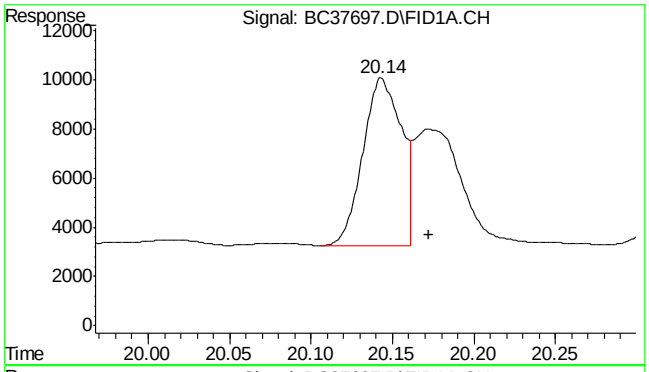
#6 2-bromonaphthalene

R.T.: 10.450 min
Delta R.T.: -0.010 min
Response: 55114
Conc: 14.56 ppm



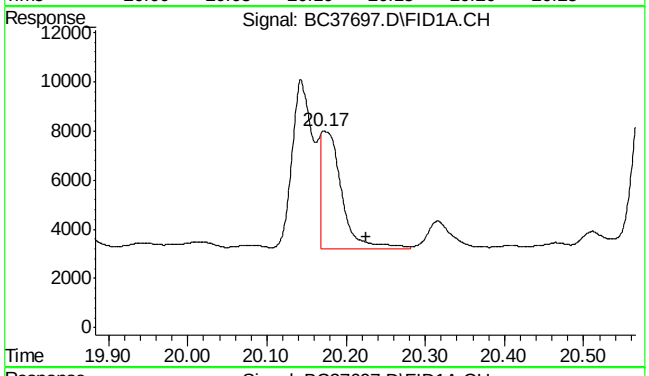
#11 o-terphenyl

R.T.: 14.217 min
Delta R.T.: -0.008 min
Response: 117990
Conc: 16.51 ppm



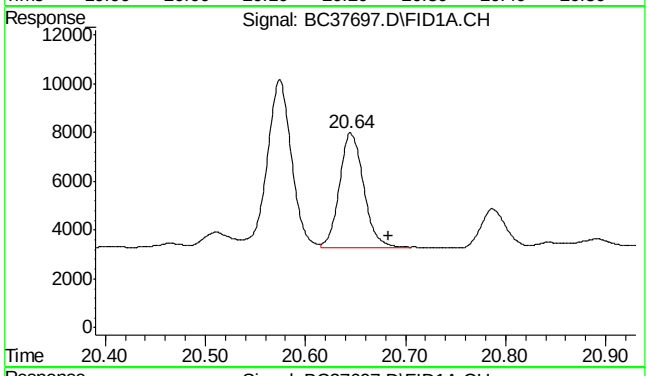
#16 benzo(b)fluoranthene

R.T.: 20.143 min
Delta R.T.: -0.030 min
Response: 11364
Conc: 1.90 ppm m



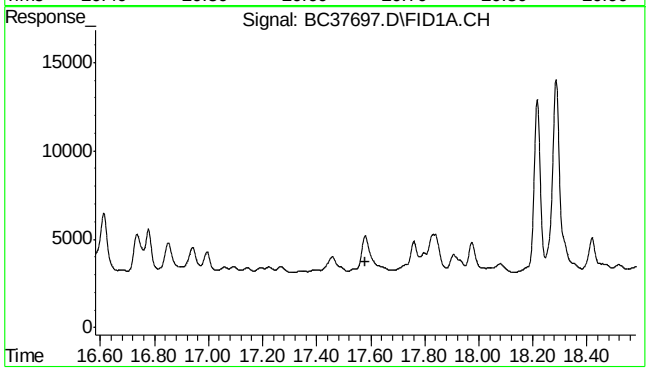
#17 benzo(k)fluoranthene

R.T.: 20.172 min
Delta R.T.: -0.054 min
Response: 8441
Conc: 1.30 ppm m



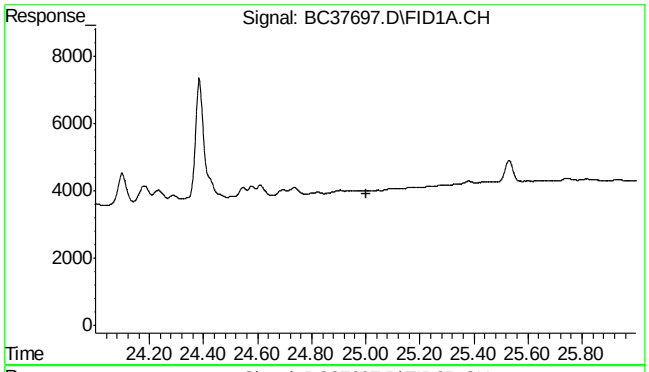
#18 benzo(a)pyrene

R.T.: 20.644 min
Delta R.T.: -0.039 min
Response: 7778
Conc: 1.26 ppm



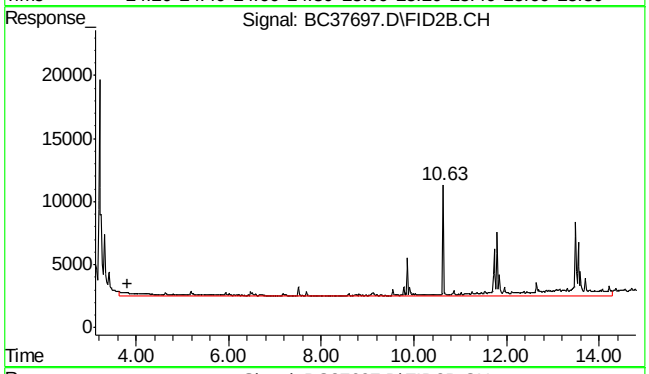
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



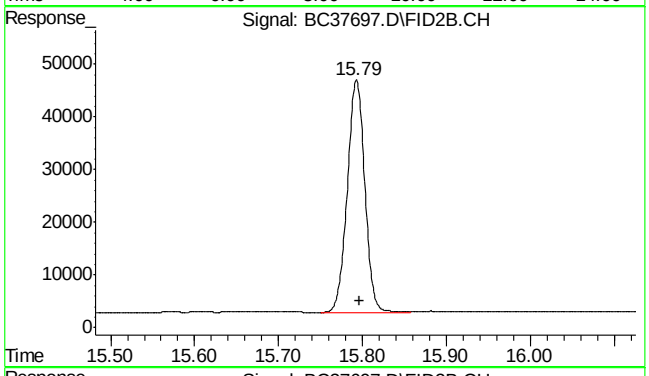
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



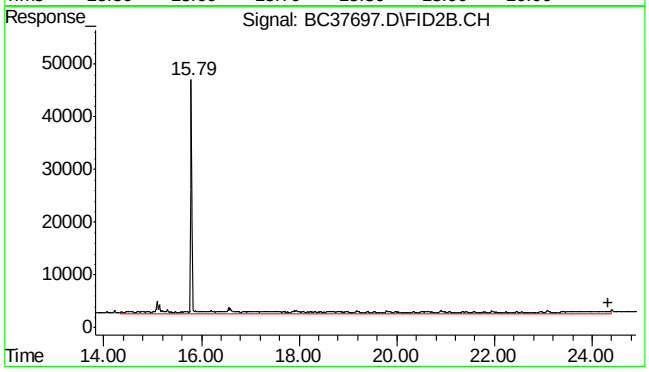
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 141224
Conc: 22.26 ppm m



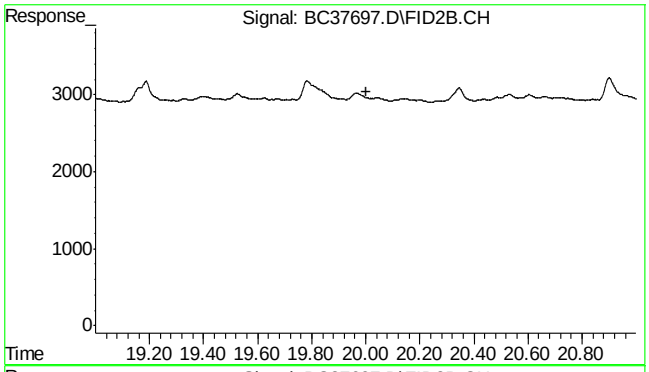
#35 1-chlorooctadecane

R.T.: 15.793 min
Delta R.T.: -0.003 min
Response: 64164
Conc: 14.00 ppm



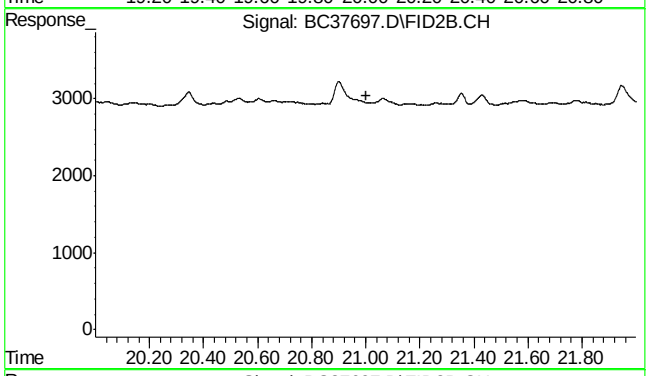
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 232899
Conc: 43.68 ppm m



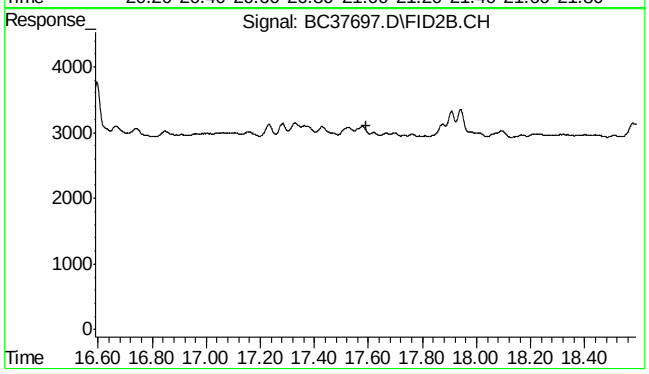
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37589.D\FID1A.CH         Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\BC37589.D\FID2B.CH
Acq On    : 3-11-10 01:57:41 AM                      Operator: KimD
Sample    : op20804-mb                               Inst    : GCBC
Misc      : op20804,gbc1913,11.30,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 11 08:32:43 2010  Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :
```

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	89793	15.942 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	79.71%
6) s 2-bromonaphthalene	10.45	58048	16.293 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	81.47%
11) s o-terphenyl	14.22	106098	15.417 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	77.09%
35) s 1-chlorooctadecane	15.79f	40218	8.877 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	44.39%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	393649	70.839 ppm
25) h c-9	3.81	196288	28.948 ppm
41) h c-36	24.33	138002	24.459 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

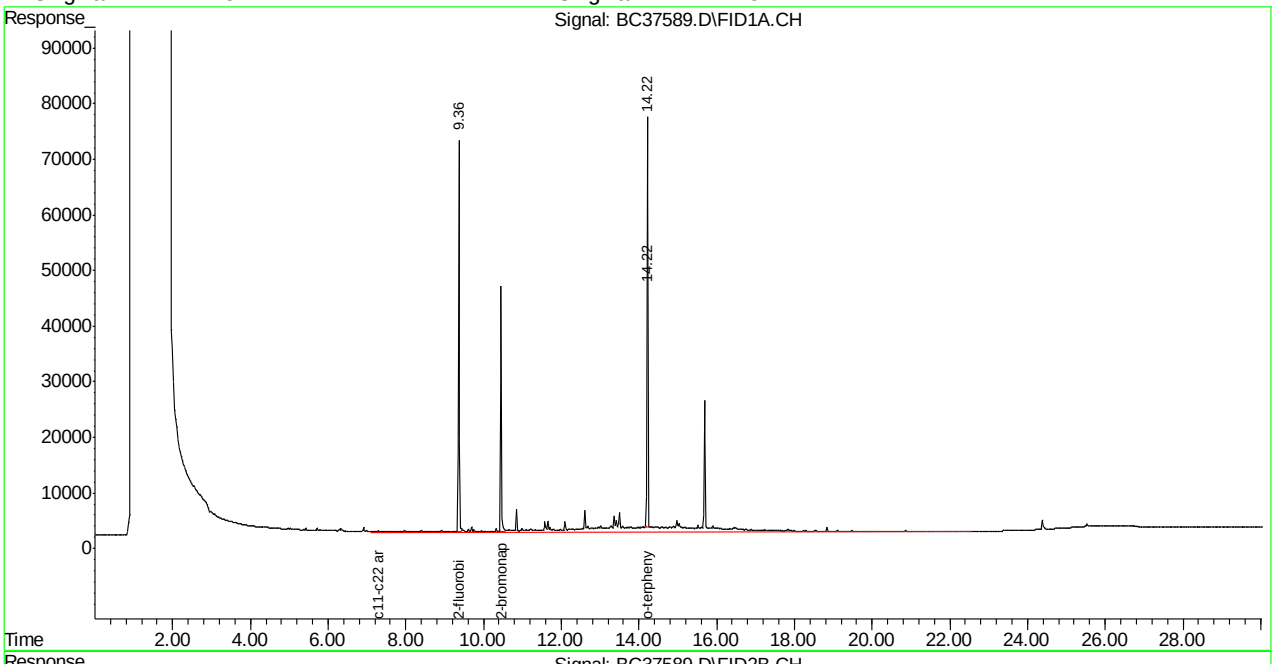
BC37589.D EPH031010.M Thu Mar 11 12:43:37 2010 RPGEN1

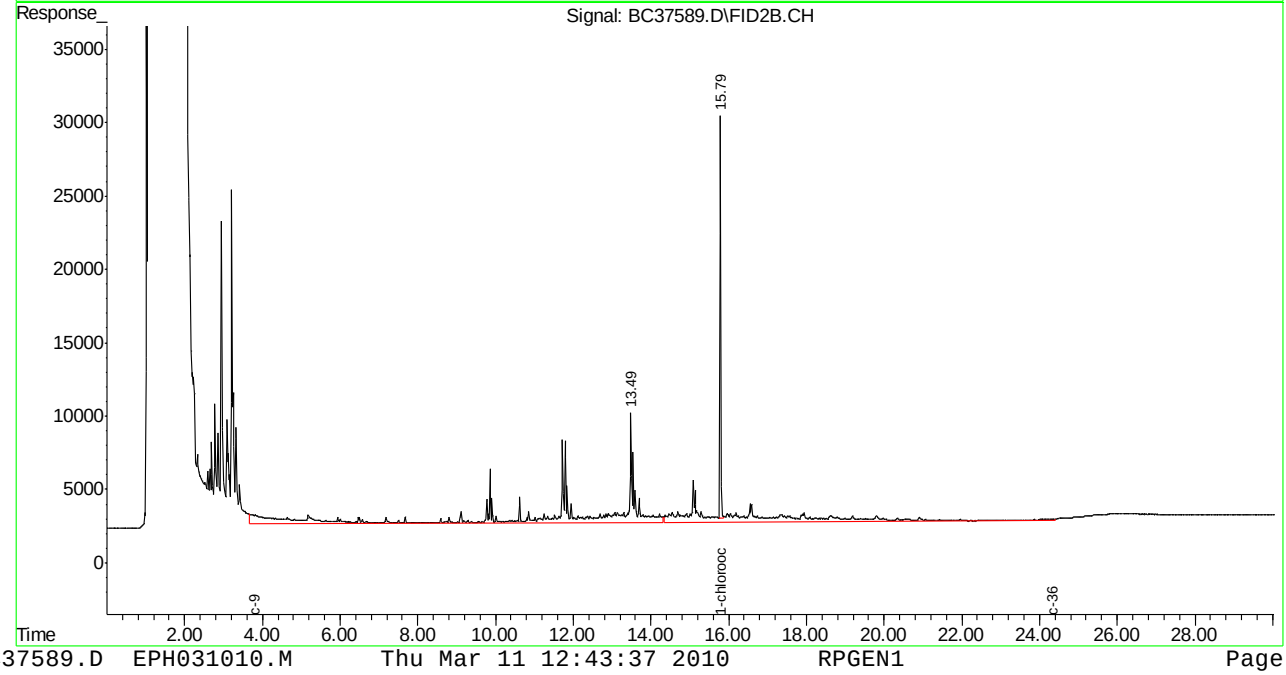
Quantitation Report (QT Reviewed)

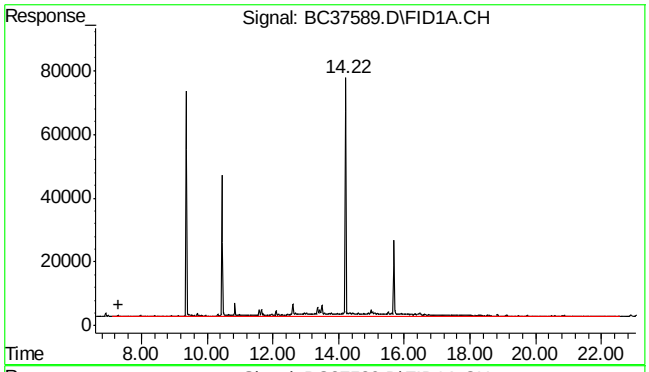
Signal #1 : C:\MSDCHEM\1\DATA\BC37589.D\FID1A.CH Vial: 34
Signal #2 : C:\MSDCHEM\1\DATA\BC37589.D\FID2B.CH
Acq On : 3-11-10 01:57:41 AM Operator: KimD
Sample : op20804-mb Inst : GCBC
Misc : op20804,gbc1913,11.30,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 12:20 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

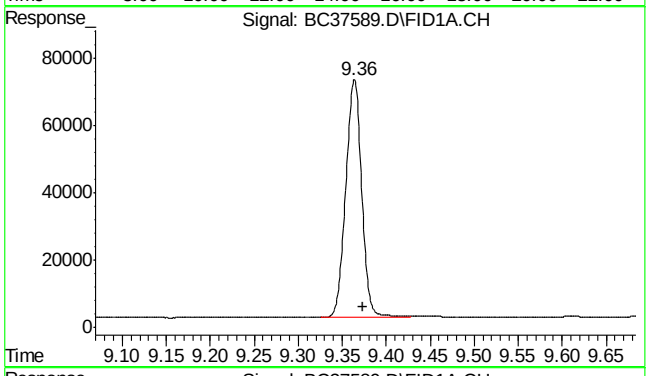






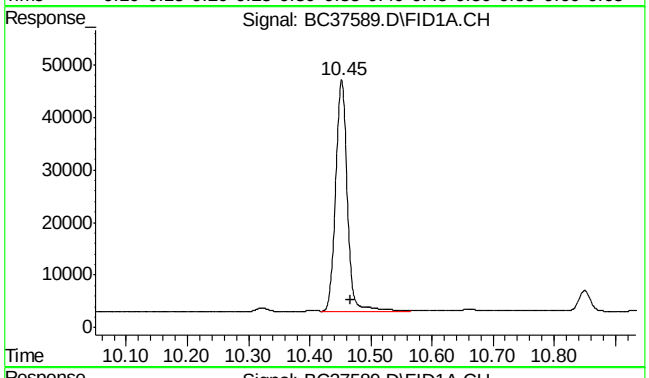
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 393649
Conc: 70.84 ppm m



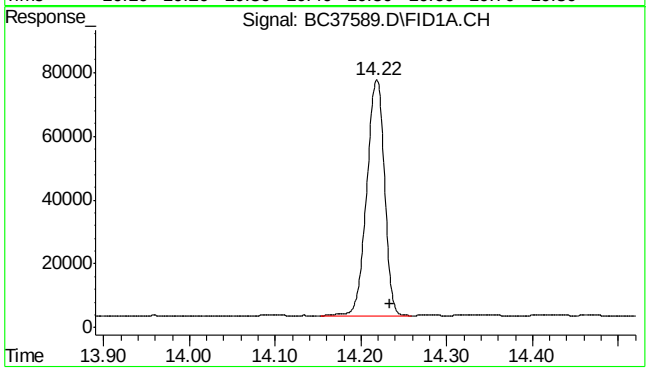
#4 2-fluorobiphenyl

R.T.: 9.364 min
Delta R.T.: -0.010 min
Response: 89793
Conc: 15.94 ppm



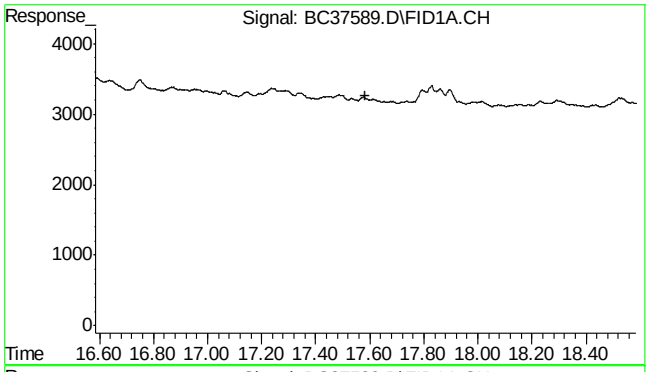
#6 2-bromonaphthalene

R.T.: 10.452 min
Delta R.T.: -0.014 min
Response: 58048
Conc: 16.29 ppm



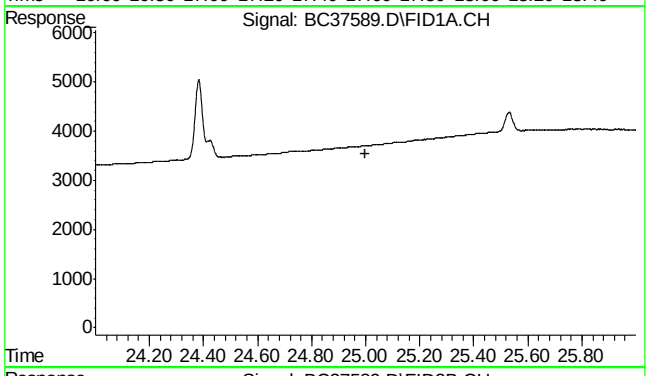
#11 o-terphenyl

R.T.: 14.218 min
Delta R.T.: -0.016 min
Response: 106098
Conc: 15.42 ppm



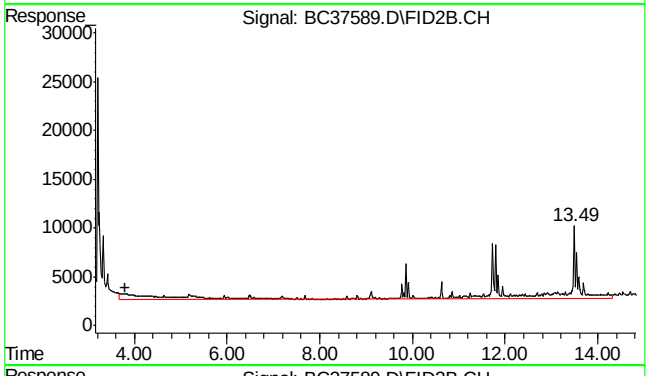
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



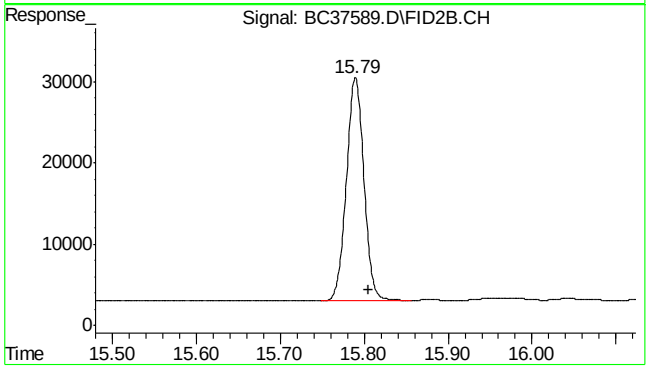
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



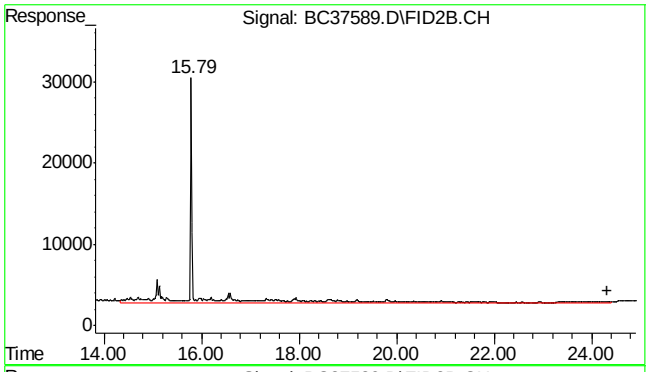
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 196288
Conc: 28.95 ppm m



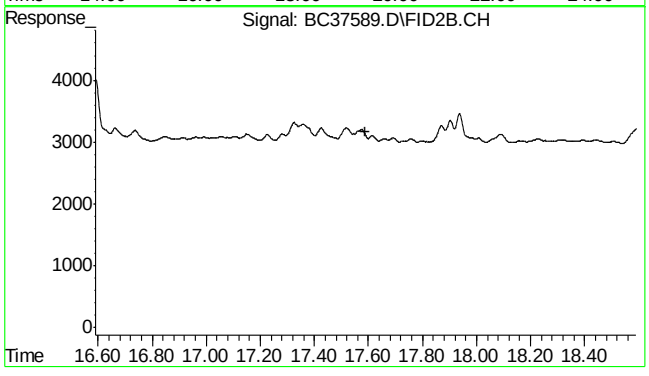
#35 1-chlorooctadecane

R.T.: 15.790 min
Delta R.T.: -0.015 min
Response: 40218
Conc: 8.88 ppm



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 138002
Conc: 24.46 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.2.1

10

ACCUTEST Laboratories F71731

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
03/12/10 14:32

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37617.D\FID1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\BC37617.D\FID2B.CH
Acq On : 3-11-10 08:49:38 PM Operator: KimD
Sample : op20804-bs, ref Inst : GCBC
Misc : op20804,gbc1915,11.45,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:54:37 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	94087	15.944 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	79.72%
6) s 2-bromonaphthalene	10.45	54539	14.403 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	72.02%
11) s o-terphenyl	14.21	115090	16.106 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	80.53%
35) s 1-chlorooctadecane	15.79	56501	12.325 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	61.63%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	2312104	366.183 ppm
2) naphthalene	7.29	102267	15.385 ppm
3) 2-methylnaphthalene	8.57	102864	15.999 ppm
5) acenaphthylene	10.21	106278	15.724 ppm
7) acenaphthene	10.57	117449	16.421 ppm
8) fluorene	11.51	120086	18.439 ppm
9) phenanthrene	13.27	123122	18.708 ppm
10) anthracene	13.36	118015	17.887 ppm
12) fluoranthene	15.52	135419	19.971 ppm
13) pyrene	15.91	136135	19.478 ppm
14) benzo(a)anthracene	18.23	132055	24.482 ppm
15) chrysene	18.30	136904	20.219 ppm
16) benzo(b)fluoranthene	20.16	136406	22.836 ppm
17) benzo(k)fluoranthene	20.20	136131	20.981 ppm
18) benzo(a)pyrene	20.66	117621	19.040 ppm
19) indeno(1,2,3-cd)pyrene	22.35	122123	23.757 ppm
20) dibenzo(ah)anthracene	22.42	124184	25.016 ppm
21) benzo(ghi)perylene	22.69	123950	22.389 ppm
25) h c-9	3.81	84147	13.265 ppm
26) h c-10	5.18	103390	16.298 ppm
27) naphthalene #2	7.50	2929	0.417 ppm
28) c-12	7.68	107887	17.007 ppm
29) 2-methylnaphthalene #2	8.76	1119	0.179 ppm m
30) c-14	9.86	111176	17.525 ppm
31) c-16	11.80	121294	19.120 ppm
32) c-18	13.55	125395	19.767 ppm
33) c-19	14.36	120996	22.693 ppm
34) c-20	15.14	123083	23.085 ppm
36) c-22	16.60	126317	23.691 ppm
37) c-24	17.94	121336	22.757 ppm
38) c-26	19.19	121843	22.852 ppm
39) c-28	20.35	117949	22.122 ppm
40) h c-30	21.45	115903	21.738 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37617.D EPH031110.M Fri Mar 12 11:02:55 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37617.D\FID1A.CH         Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\BC37617.D\FID2B.CH
Acq On    : 3-11-10 08:49:38 PM                      Operator: KimD
Sample    : op20804-bs, ref                          Inst    : GCBC
Misc      : op20804,gbc1915,11.45,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:54:37 2010  Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

	Compound	R.T.	Response	Conc	Units
41) h	c-36	24.33	82677	15.506	ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

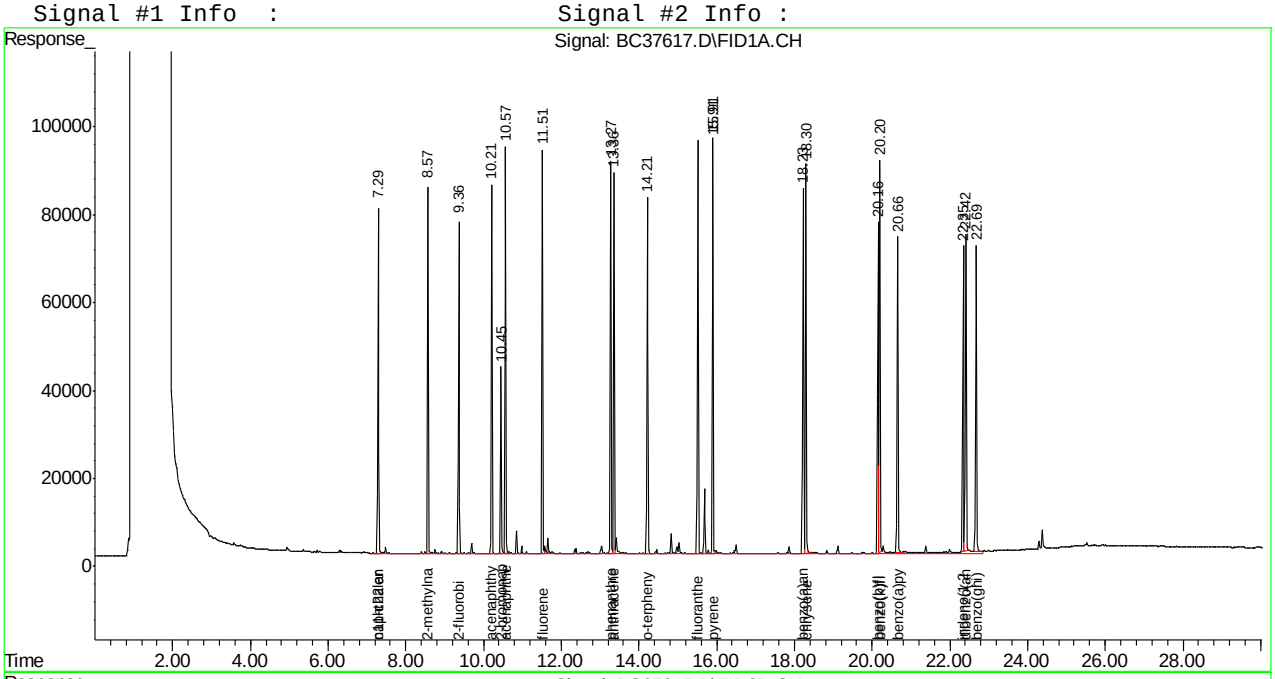
BC37617.D EPH031110.M Fri Mar 12 11:02:56 2010 RPGEN1

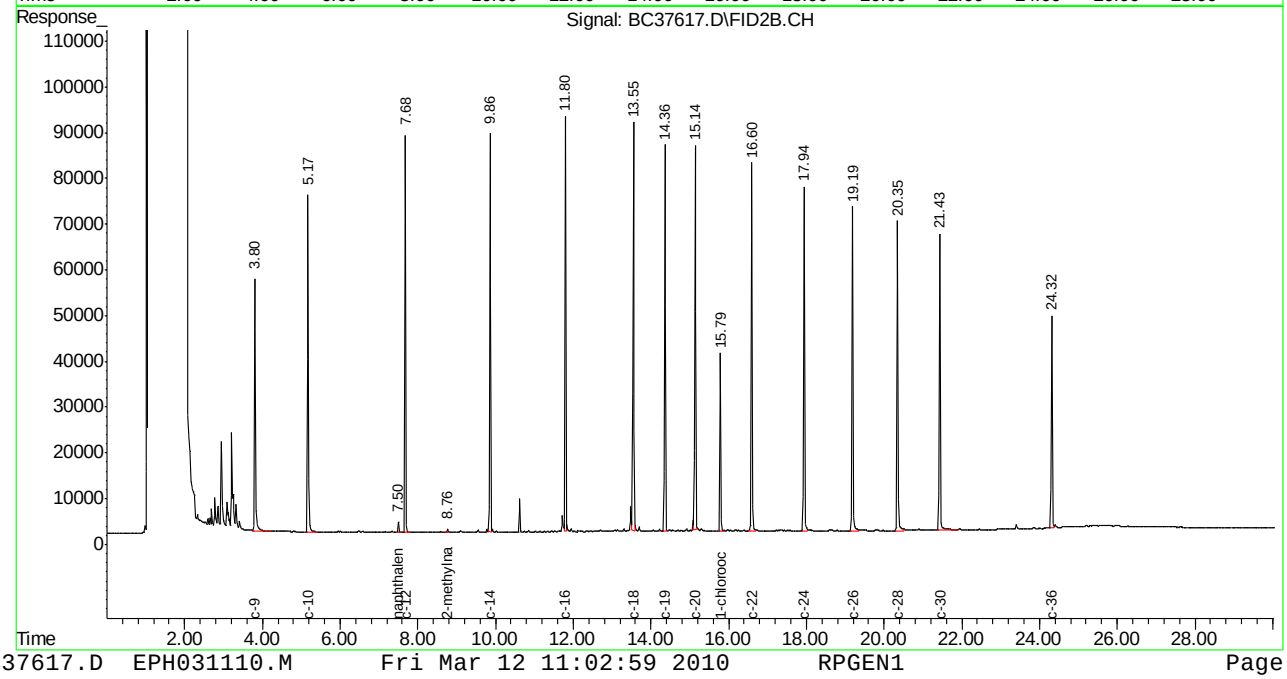
Quantitation Report (QT Reviewed)

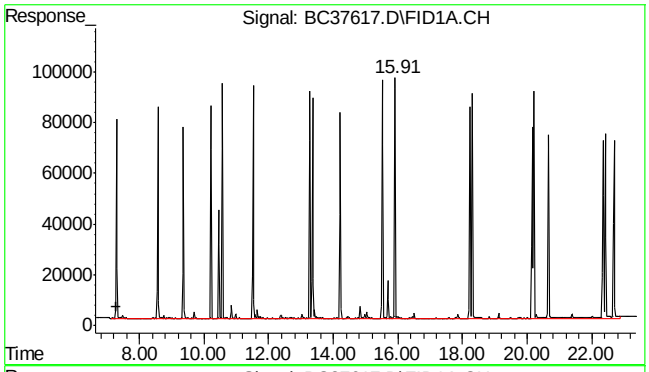
Signal #1 : C:\MSDCHEM\1\DATA\BC37617.D\FID1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\BC37617.D\FID2B.CH
Acq On : 3-11-10 08:49:38 PM Operator: KimD
Sample : op20804-bs, ref Inst : GCBC
Misc : op20804,gbc1915,11.45,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 9:44 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

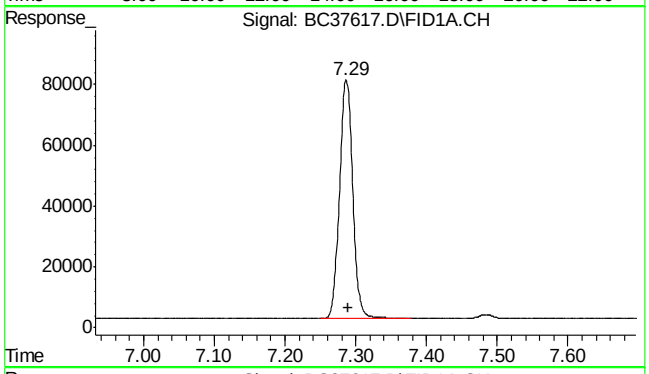






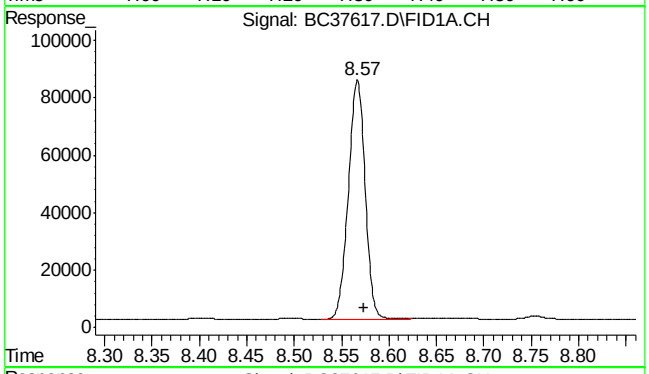
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 2312104
Conc: 366.18 ppm m



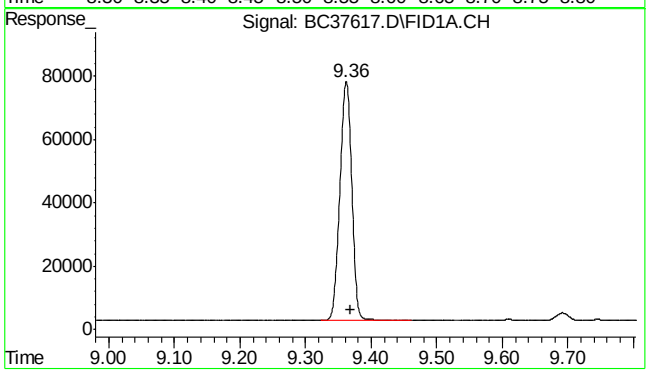
#2 naphthalene

R.T.: 7.286 min
Delta R.T.: -0.004 min
Response: 102267
Conc: 15.39 ppm



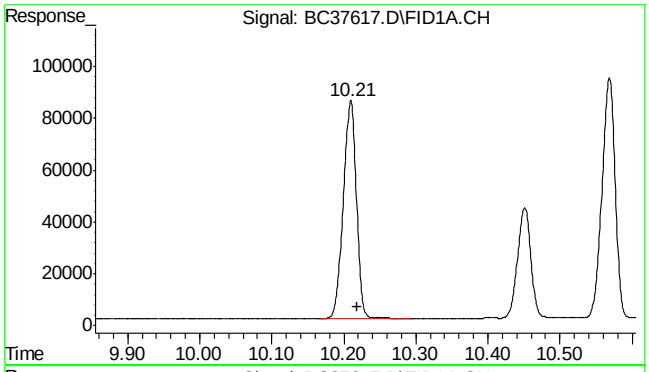
#3 2-methylnaphthalene

R.T.: 8.566 min
Delta R.T.: -0.007 min
Response: 102864
Conc: 16.00 ppm



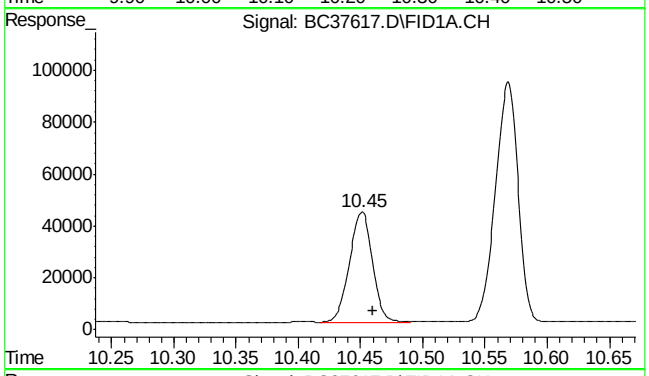
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 94087
Conc: 15.94 ppm



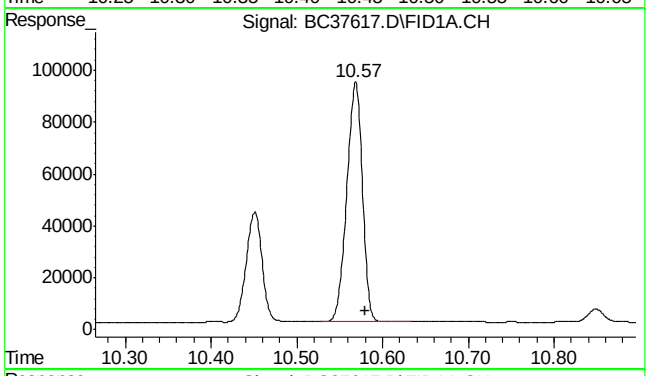
#5 acenaphthylene

R.T.: 10.210 min
Delta R.T.: -0.009 min
Response: 106278
Conc: 15.72 ppm



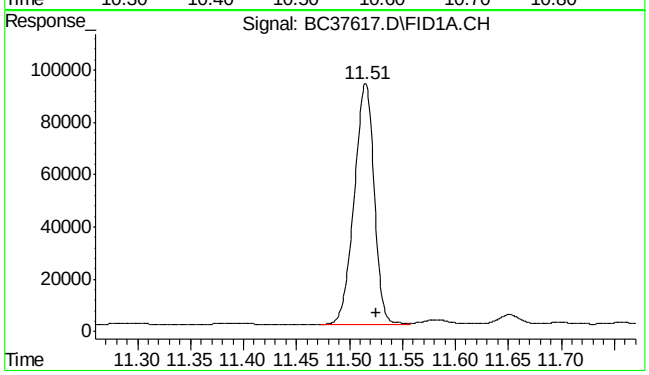
#6 2-bromonaphthalene

R.T.: 10.451 min
Delta R.T.: -0.009 min
Response: 54539
Conc: 14.40 ppm



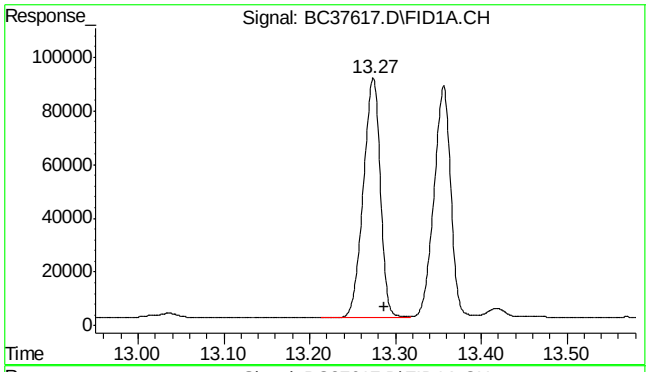
#7 acenaphthene

R.T.: 10.569 min
Delta R.T.: -0.012 min
Response: 117449
Conc: 16.42 ppm



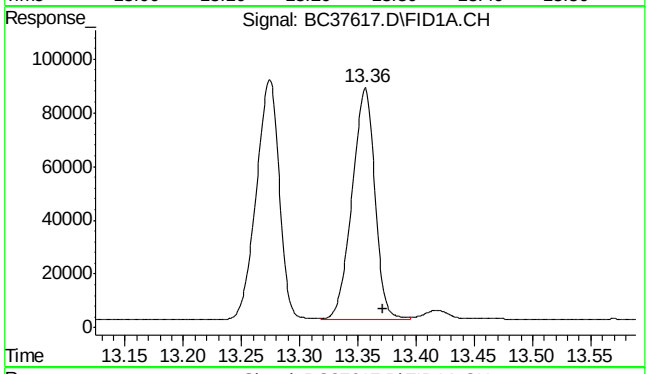
#8 fluorene

R.T.: 11.515 min
Delta R.T.: -0.011 min
Response: 120086
Conc: 18.44 ppm



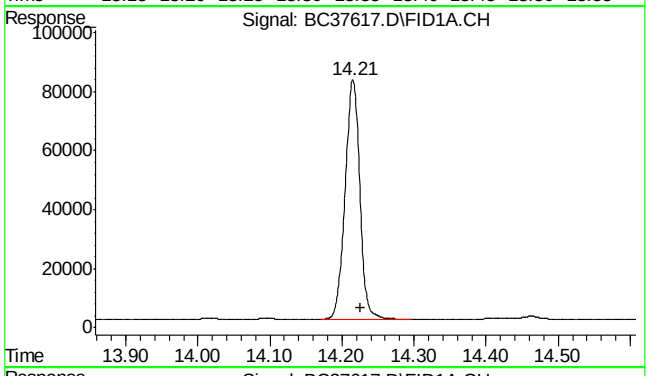
#9 phenanthrene

R.T.: 13.274 min
Delta R.T.: -0.013 min
Response: 123122
Conc: 18.71 ppm



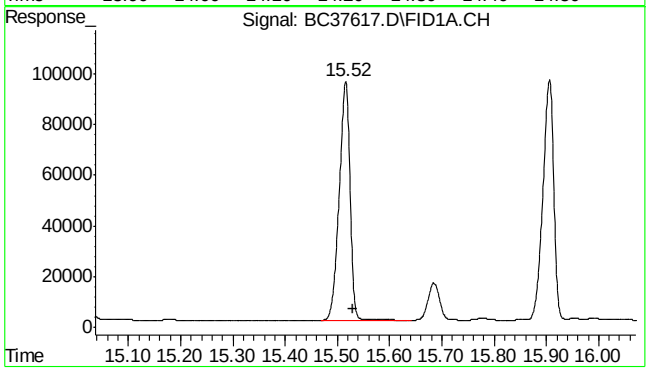
#10 anthracene

R.T.: 13.356 min
Delta R.T.: -0.016 min
Response: 118015
Conc: 17.89 ppm



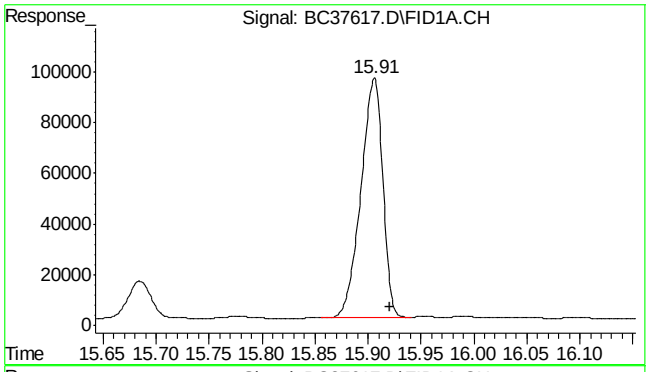
#11 o-terphenyl

R.T.: 14.215 min
Delta R.T.: -0.011 min
Response: 115090
Conc: 16.11 ppm



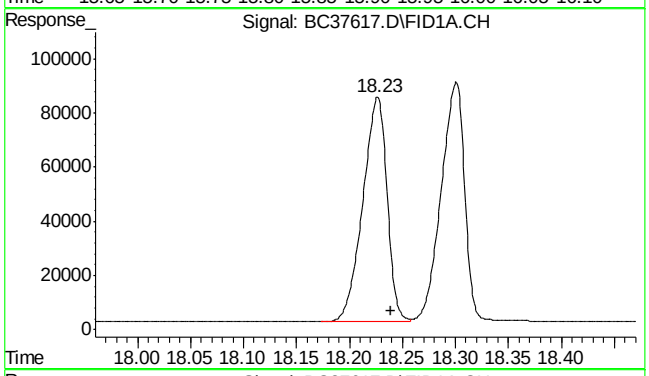
#12 fluoranthene

R.T.: 15.516 min
Delta R.T.: -0.014 min
Response: 135419
Conc: 19.97 ppm



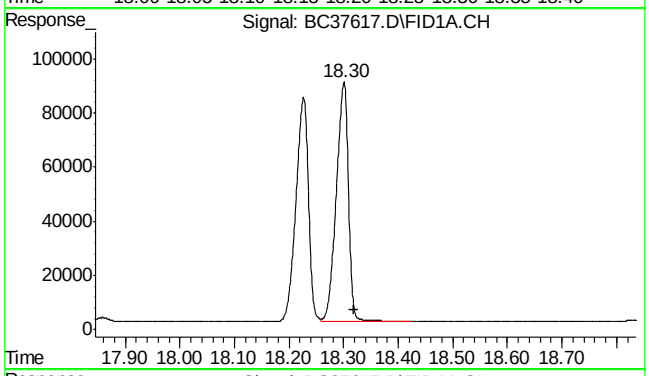
#13 pyrene

R.T.: 15.906 min
Delta R.T.: -0.015 min
Response: 136135
Conc: 19.48 ppm



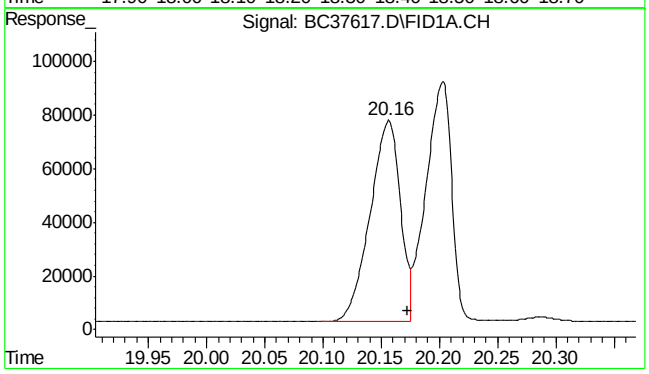
#14 benzo(a)anthracene

R.T.: 18.226 min
Delta R.T.: -0.013 min
Response: 132055
Conc: 24.48 ppm



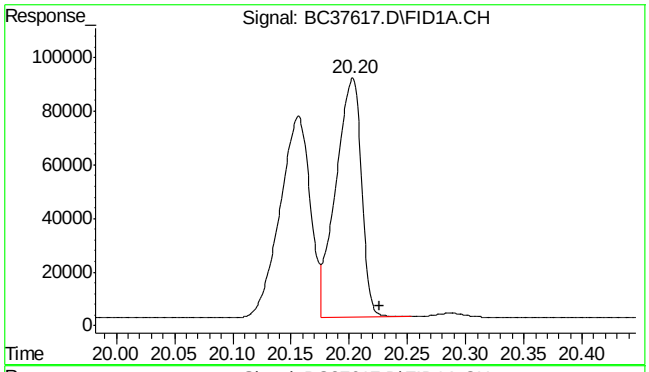
#15 chrysene

R.T.: 18.300 min
Delta R.T.: -0.019 min
Response: 136904
Conc: 20.22 ppm



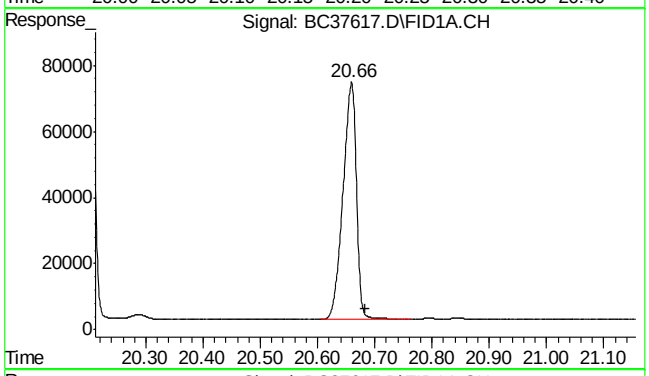
#16 benzo(b)fluoranthene

R.T.: 20.156 min
Delta R.T.: -0.017 min
Response: 136406
Conc: 22.84 ppm



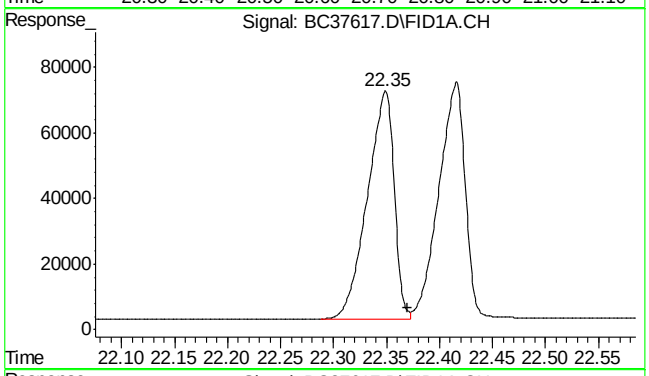
#17 benzo(k)fluoranthene

R.T.: 20.203 min
Delta R.T.: -0.023 min
Response: 136131
Conc: 20.98 ppm



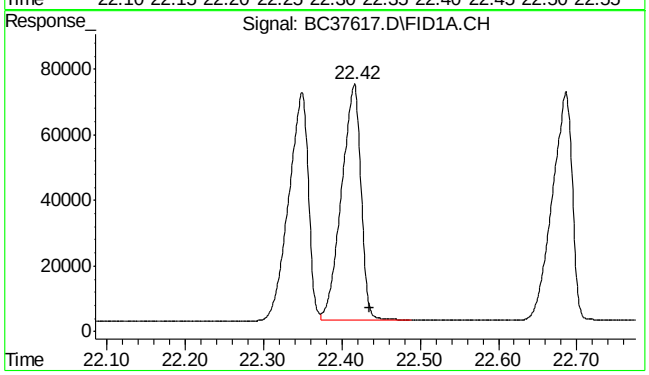
#18 benzo(a)pyrene

R.T.: 20.660 min
Delta R.T.: -0.024 min
Response: 117621
Conc: 19.04 ppm



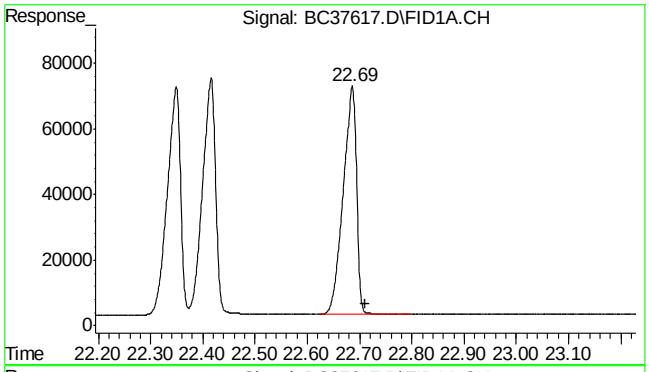
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.349 min
Delta R.T.: -0.021 min
Response: 122123
Conc: 23.76 ppm



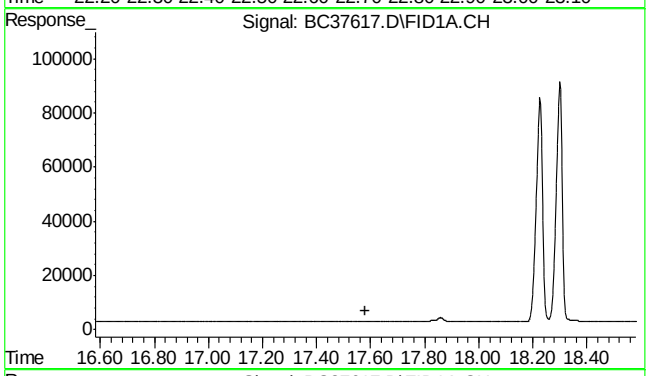
#20 dibenzo(ah)anthracene

R.T.: 22.416 min
Delta R.T.: -0.020 min
Response: 124184
Conc: 25.02 ppm



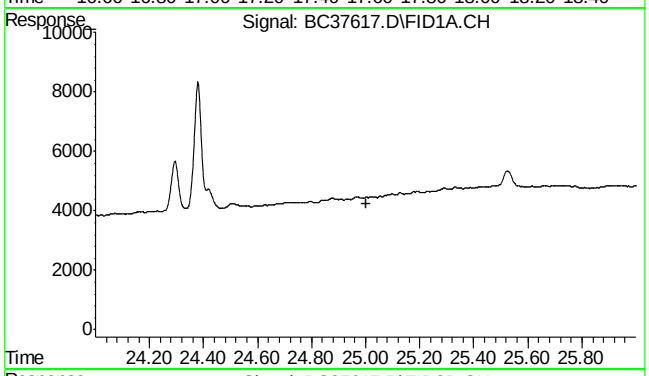
#21 benzo(ghi)perylene

R.T.: 22.686 min
Delta R.T.: -0.025 min
Response: 123950
Conc: 22.39 ppm



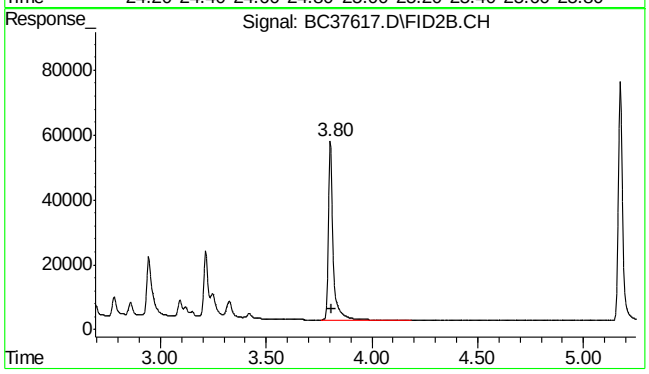
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



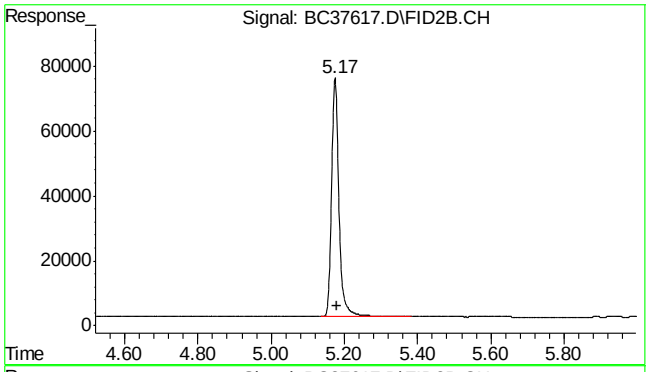
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 84147
Conc: 13.26 ppm m

10.3.1

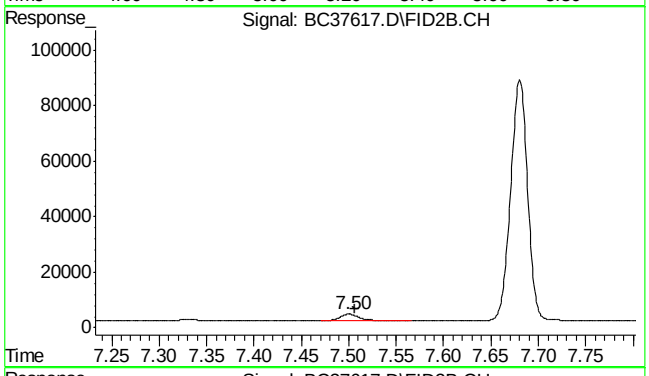
10

ACCUTEST Laboratories F71731



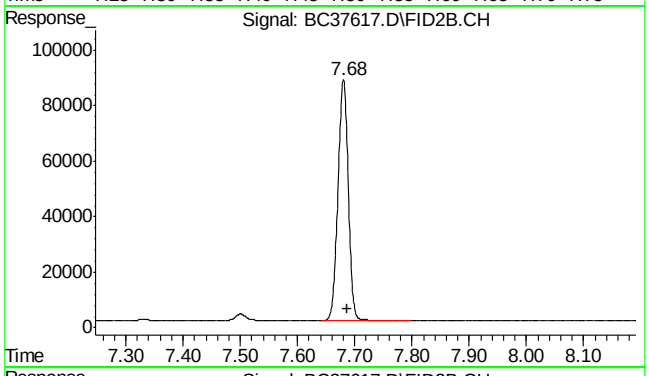
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 103390
Conc: 16.30 ppm m



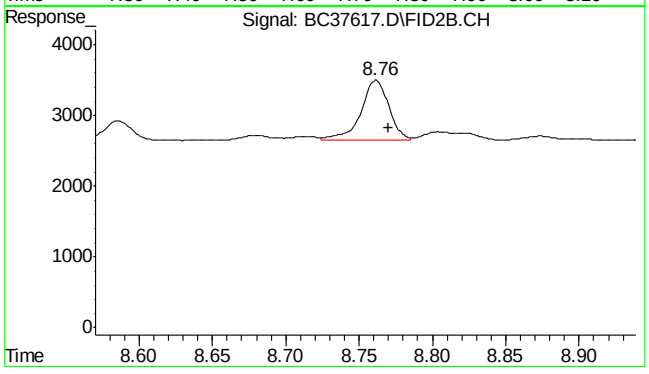
#27 naphthalene #2

R.T.: 7.500 min
Delta R.T.: -0.007 min
Response: 2929
Conc: 0.42 ppm



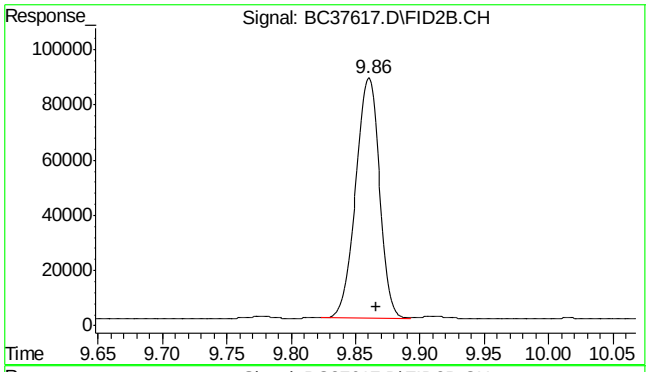
#28 c-12

R.T.: 7.680 min
Delta R.T.: -0.007 min
Response: 107887
Conc: 17.01 ppm



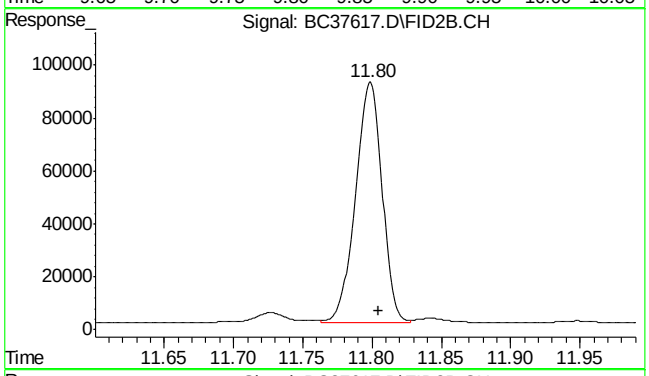
#29 2-methylnaphthalene #2

R.T.: 8.761 min
Delta R.T.: -0.009 min
Response: 1119
Conc: 0.18 ppm m



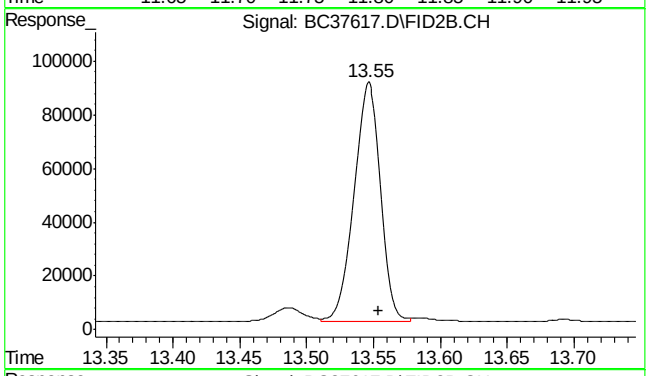
#30 c-14

R.T.: 9.860 min
Delta R.T.: -0.006 min
Response: 111176
Conc: 17.53 ppm



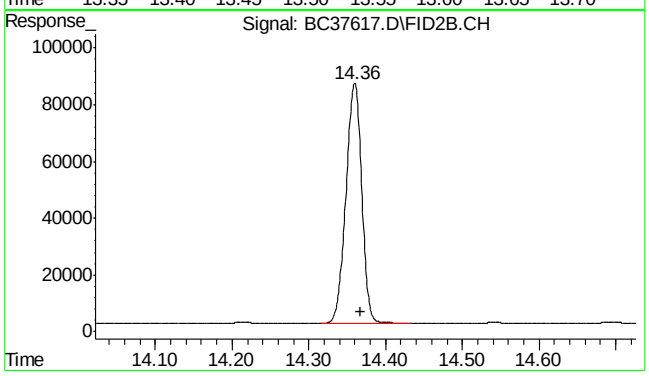
#31 c-16

R.T.: 11.799 min
Delta R.T.: -0.006 min
Response: 121294
Conc: 19.12 ppm



#32 c-18

R.T.: 13.546 min
Delta R.T.: -0.007 min
Response: 125395
Conc: 19.77 ppm

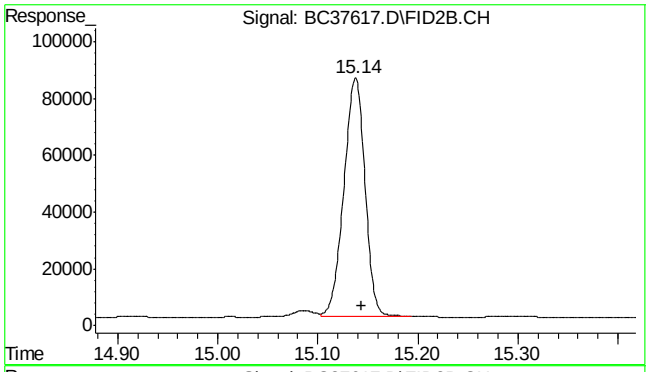


#33 c-19

R.T.: 14.360 min
Delta R.T.: -0.007 min
Response: 120996
Conc: 22.69 ppm

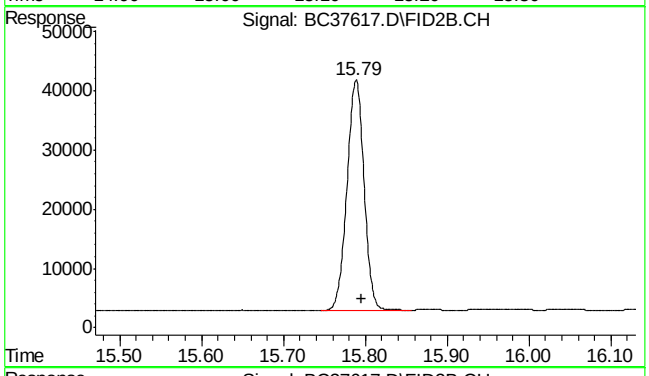
10.3.1

10



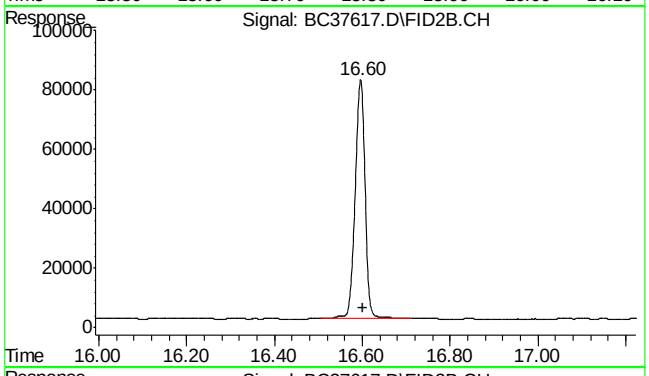
#34 c-20

R.T.: 15.138 min
Delta R.T.: -0.006 min
Response: 123083
Conc: 23.08 ppm



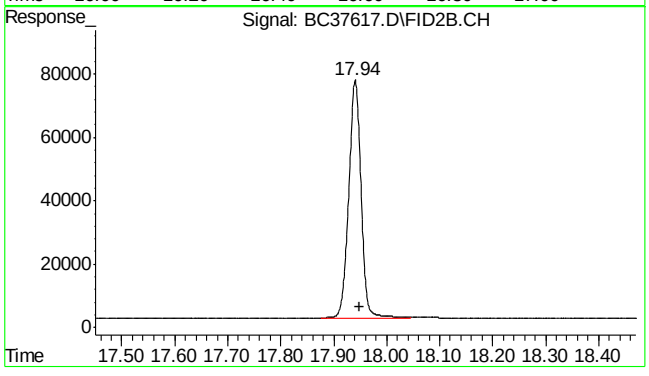
#35 1-chlorooctadecane

R.T.: 15.789 min
Delta R.T.: -0.007 min
Response: 56501
Conc: 12.32 ppm



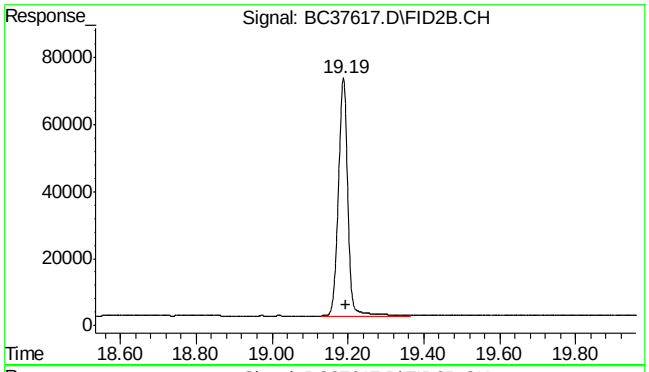
#36 c-22

R.T.: 16.596 min
Delta R.T.: -0.007 min
Response: 126317
Conc: 23.69 ppm



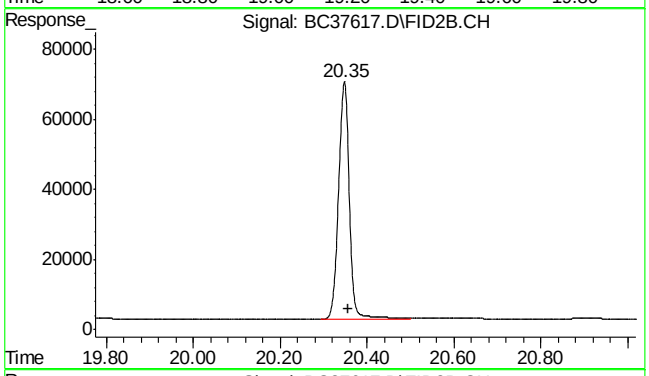
#37 c-24

R.T.: 17.940 min
Delta R.T.: -0.008 min
Response: 121336
Conc: 22.76 ppm



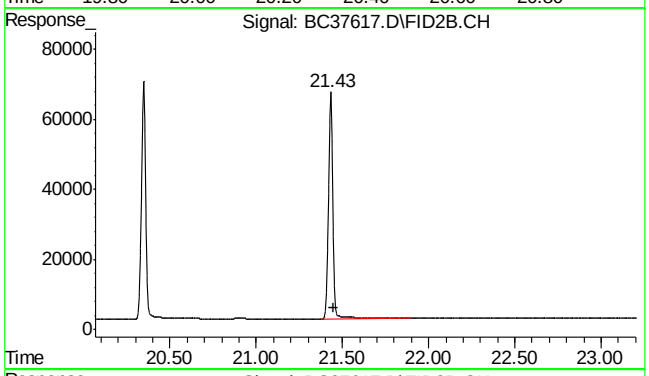
#38 c-26

R.T.: 19.188 min
Delta R.T.: -0.007 min
Response: 121843
Conc: 22.85 ppm



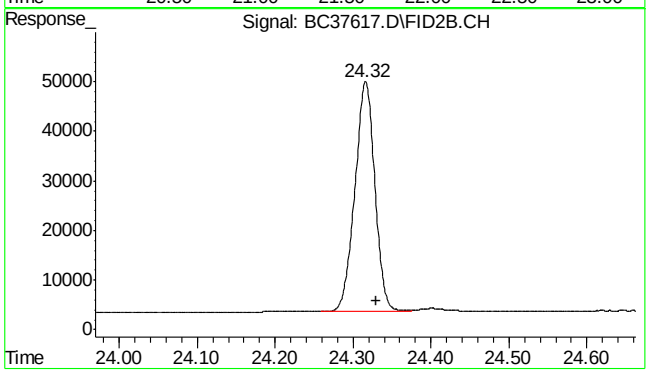
#39 c-28

R.T.: 20.347 min
Delta R.T.: -0.009 min
Response: 117949
Conc: 22.12 ppm



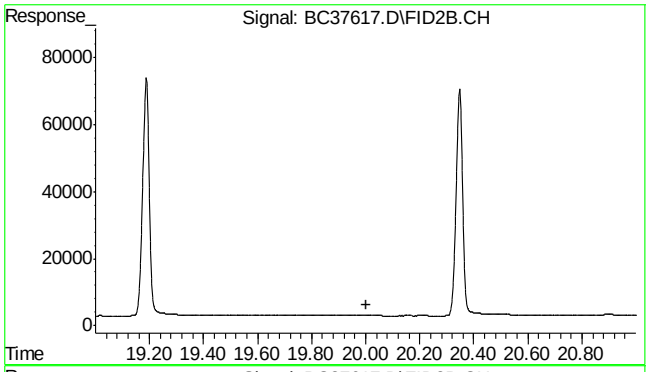
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 115903
Conc: 21.74 ppm m



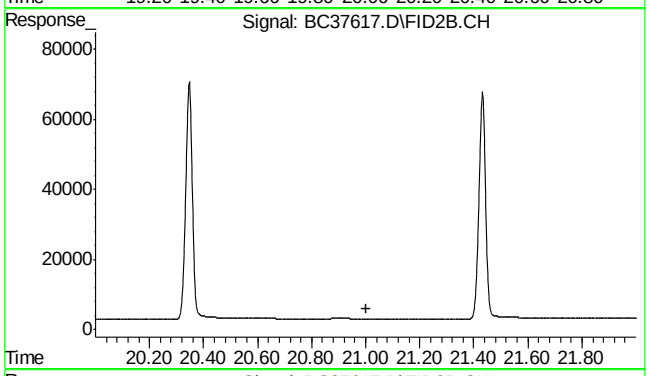
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 82677
Conc: 15.51 ppm m



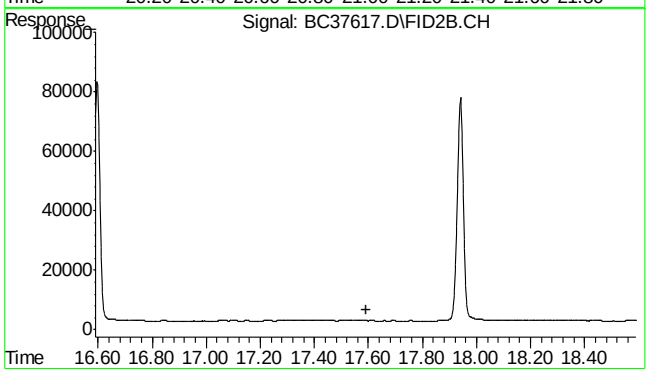
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
03/12/10 14:32

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37618.D\FID1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\BC37618.D\FID2B.CH
Acq On : 3-11-10 09:29:07 PM Operator: KimD
Sample : op20804-bsd, ref Inst : GCBC
Misc : op20804,gbc1915,11.20,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:54:58 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	91612	15.525 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	77.63%
6) s 2-bromonaphthalene	10.45	61432	16.224 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	81.12%
11) s o-terphenyl	14.22	110215	15.424 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	77.12%
35) s 1-chlorooctadecane	15.79	46186	10.075 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	50.37%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	2318029	367.121 ppm
2) naphthalene	7.29	102686	15.448 ppm
3) 2-methylnaphthalene	8.57	102128	15.885 ppm
5) acenaphthylene	10.21	102140	15.112 ppm
7) acenaphthene	10.57	112996	15.798 ppm
8) fluorene	11.52	113016	17.353 ppm
9) phenanthrene	13.27	118616	18.024 ppm
10) anthracene	13.36	117422	17.797 ppm
12) fluoranthene	15.52	137559	20.287 ppm
13) pyrene	15.91	138455	19.810 ppm
14) benzo(a)anthracene	18.23	136124	25.237 ppm
15) chrysene	18.30	140983	20.821 ppm
16) benzo(b)fluoranthene	20.16	138982	23.267 ppm
17) benzo(k)fluoranthene	20.20	140930	21.721 ppm
18) benzo(a)pyrene	20.66	125858	20.373 ppm
19) indeno(1,2,3-cd)pyrene	22.35	123137	23.954 ppm
20) dibenzo(ah)anthracene	22.42	126963	25.575 ppm
21) benzo(ghi)perylene	22.69	126091	22.776 ppm
25) h c-9	3.81	90850	14.321 ppm
26) h c-10	5.18	107645	16.969 ppm
27) naphthalene #2	7.50	330	0.047 ppm m
28) c-12	7.68	111406	17.562 ppm
29) 2-methylnaphthalene #2	8.76	81	0.013 ppm m
30) c-14	9.86	112430	17.723 ppm
31) c-16	11.80	119105	18.775 ppm
32) c-18	13.55	128233	20.214 ppm
33) c-19	14.36	125296	23.500 ppm
34) c-20	15.14	128489	24.099 ppm
36) c-22	16.60	132403	24.833 ppm
37) c-24	17.94	127688	23.948 ppm
38) c-26	19.19	127806	23.971 ppm
39) c-28	20.35	123356	23.136 ppm
40) h c-30	21.45	119154	22.348 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37618.D EPH031110.M Fri Mar 12 11:03:10 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37618.D\FID1A.CH         Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\BC37618.D\FID2B.CH
Acq On    : 3-11-10 09:29:07 PM                      Operator: KimD
Sample    : op20804-bsd, ref                         Inst    : GCBC
Misc      : op20804,gbc1915,11.20,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:54:58 2010  Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :
```

Compound	R.T.	Response	Conc Units
41) h c-36	24.33	83468	15.655 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

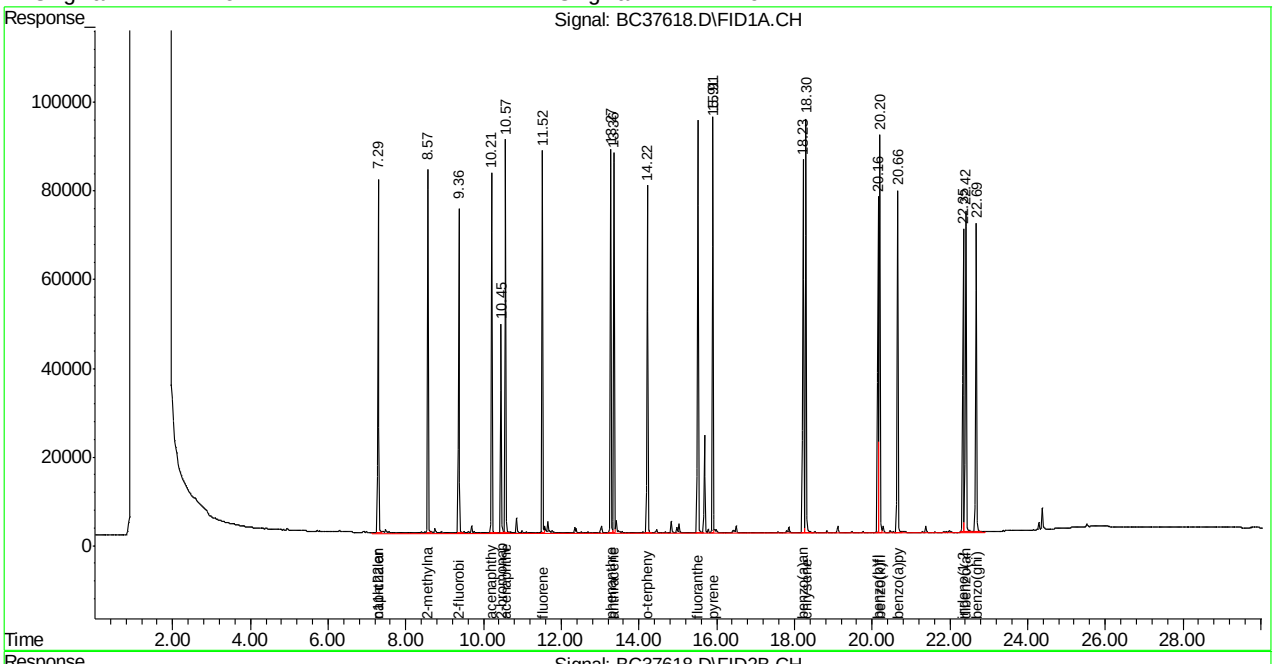
BC37618.D EPH031110.M Fri Mar 12 11:03:10 2010 RPGEN1

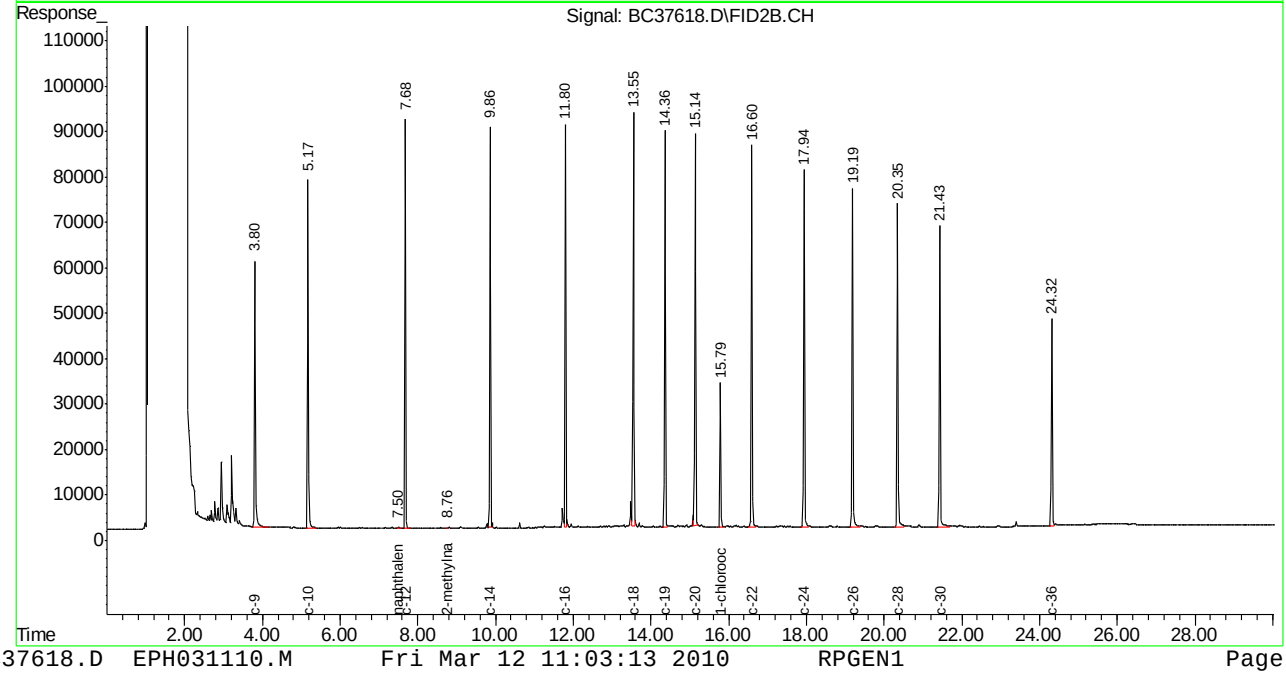
Quantitation Report (QT Reviewed)

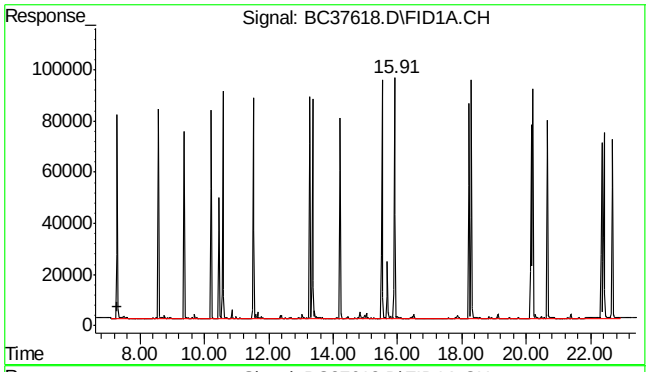
Signal #1 : C:\MSDCHEM\1\DATA\BC37618.D\FID1A.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\BC37618.D\FID2B.CH
Acq On : 3-11-10 09:29:07 PM Operator: KimD
Sample : op20804-bsd, ref Inst : GCBC
Misc : op20804,gbc1915,11.20,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 9:46 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

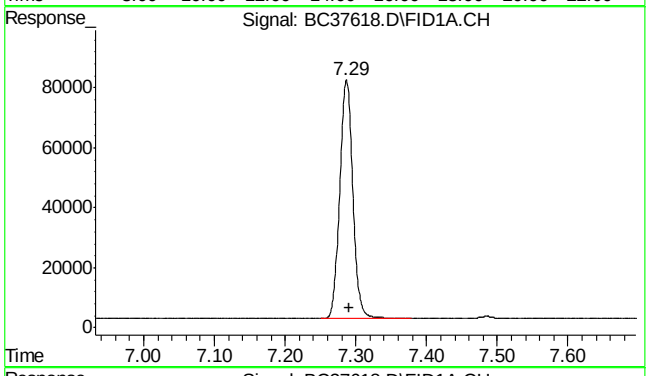






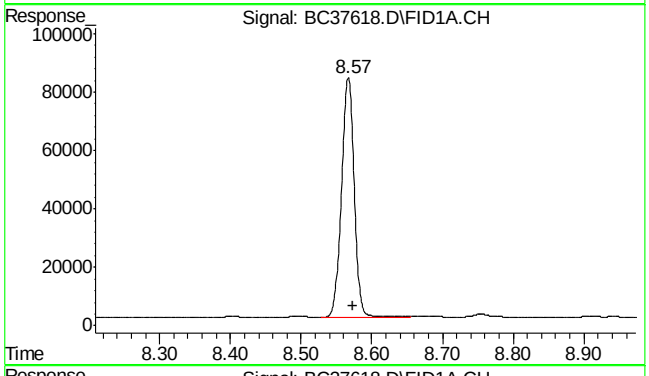
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 2318029
Conc: 367.12 ppm m



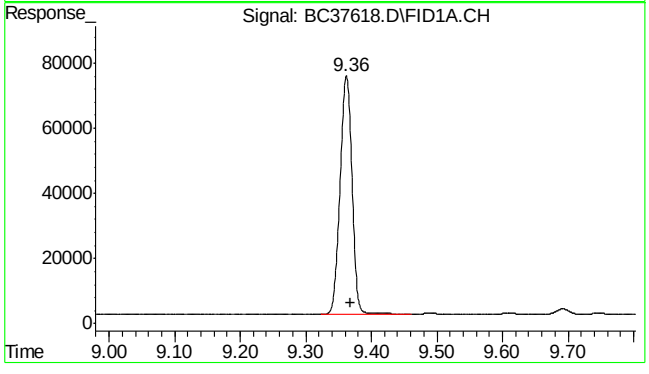
#2 naphthalene

R.T.: 7.287 min
Delta R.T.: -0.003 min
Response: 102686
Conc: 15.45 ppm



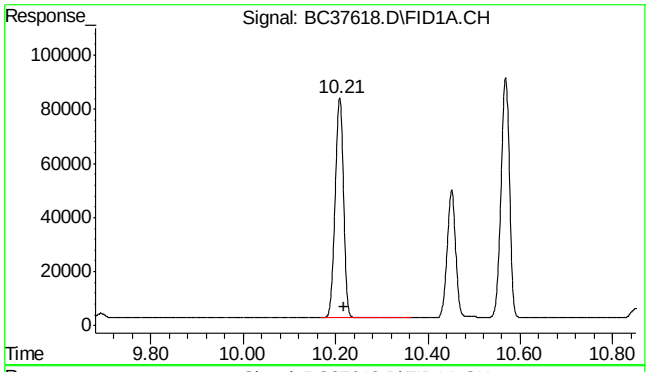
#3 2-methylnaphthalene

R.T.: 8.567 min
Delta R.T.: -0.007 min
Response: 102128
Conc: 15.88 ppm



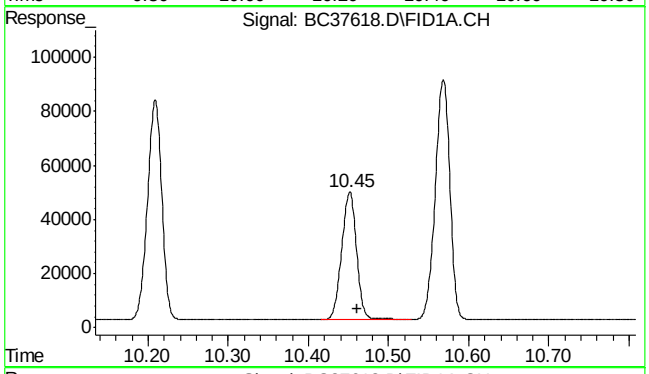
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 91612
Conc: 15.52 ppm



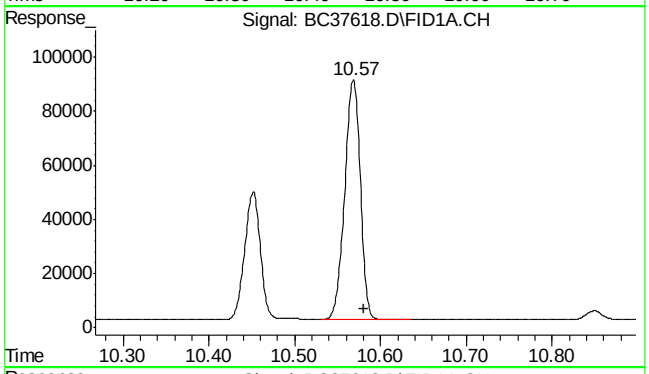
#5 acenaphthylene

R.T.: 10.208 min
Delta R.T.: -0.010 min
Response: 102140
Conc: 15.11 ppm



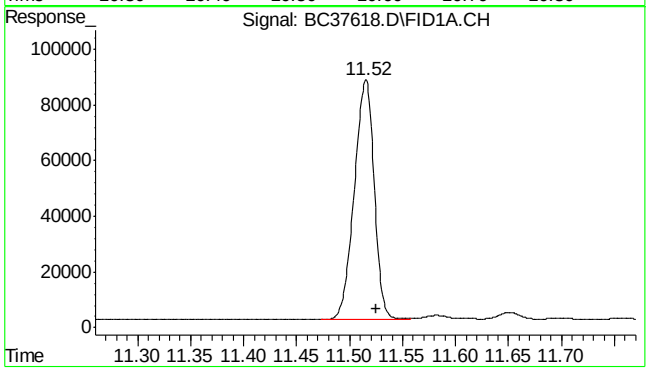
#6 2-bromonaphthalene

R.T.: 10.452 min
Delta R.T.: -0.008 min
Response: 61432
Conc: 16.22 ppm



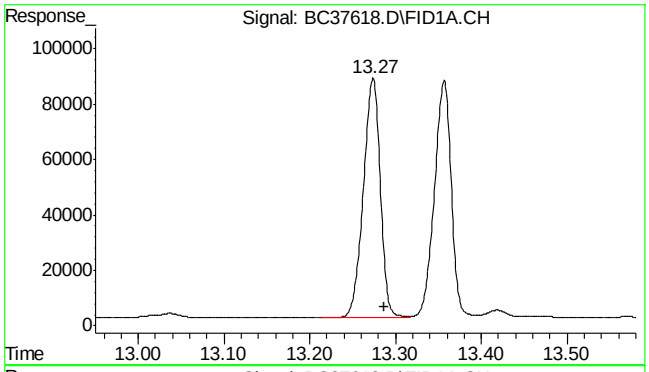
#7 acenaphthene

R.T.: 10.568 min
Delta R.T.: -0.012 min
Response: 112996
Conc: 15.80 ppm



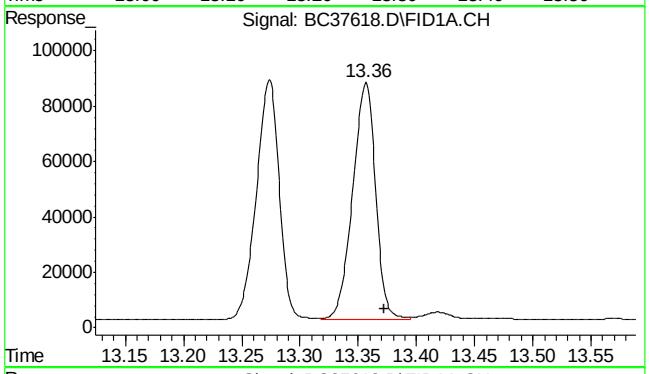
#8 fluorene

R.T.: 11.515 min
Delta R.T.: -0.010 min
Response: 113016
Conc: 17.35 ppm



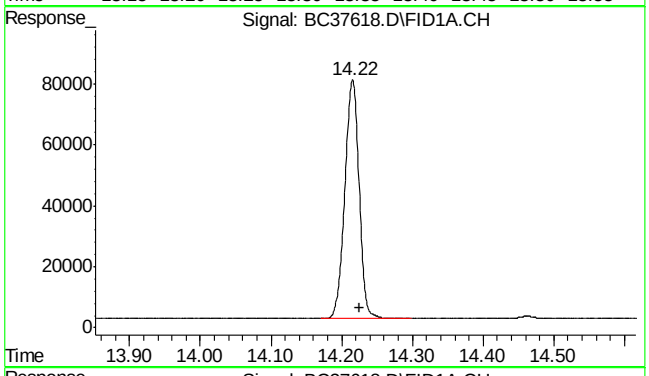
#9 phenanthrene

R.T.: 13.273 min
Delta R.T.: -0.013 min
Response: 118616
Conc: 18.02 ppm



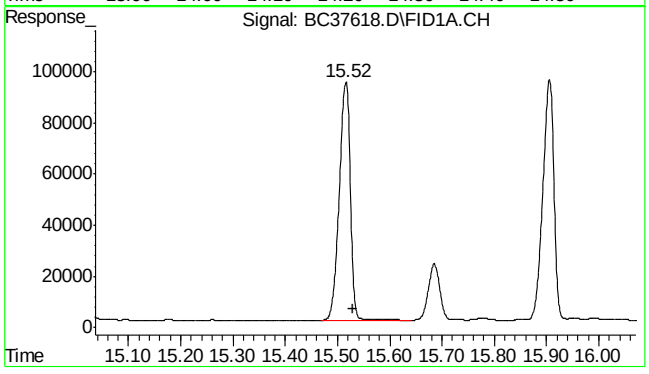
#10 anthracene

R.T.: 13.357 min
Delta R.T.: -0.015 min
Response: 117422
Conc: 17.80 ppm



#11 o-terphenyl

R.T.: 14.215 min
Delta R.T.: -0.010 min
Response: 110215
Conc: 15.42 ppm



#12 fluoranthene

R.T.: 15.517 min
Delta R.T.: -0.013 min
Response: 137559
Conc: 20.29 ppm

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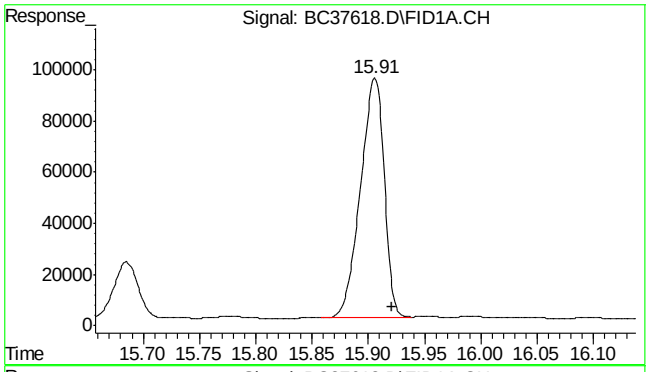
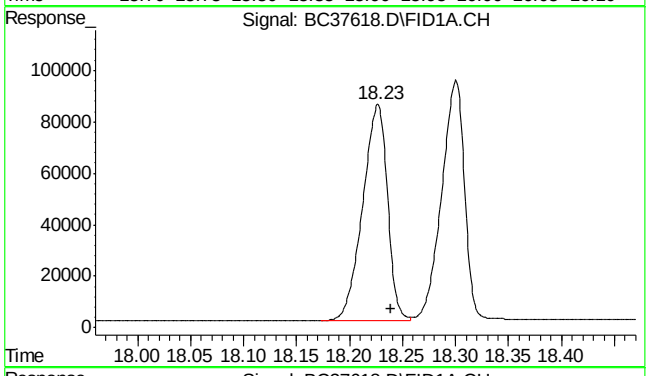


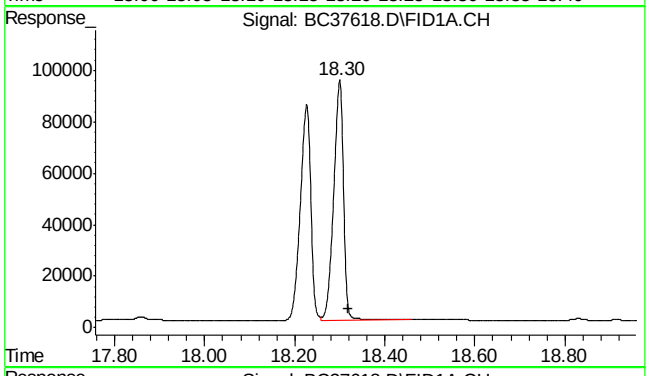
#13 pyrene

R.T.: 15.905 min
Delta R.T.: -0.016 min
Response: 138455
Conc: 19.81 ppm



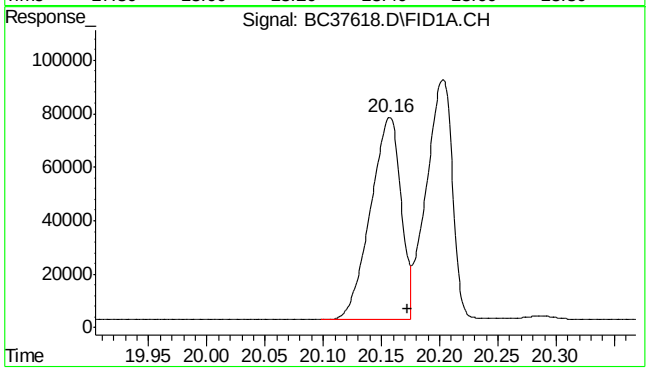
#14 benzo(a)anthracene

R.T.: 18.227 min
Delta R.T.: -0.012 min
Response: 136124
Conc: 25.24 ppm



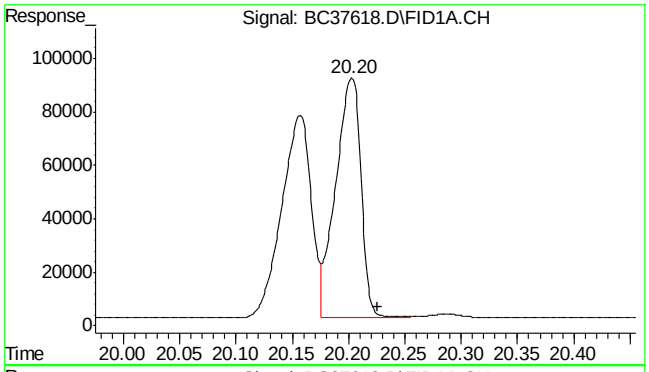
#15 chrysene

R.T.: 18.300 min
Delta R.T.: -0.019 min
Response: 140983
Conc: 20.82 ppm



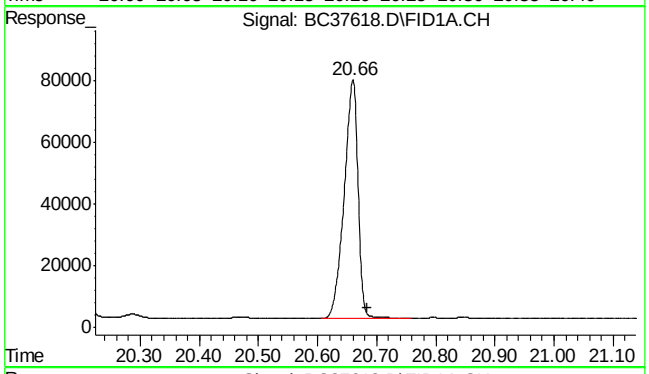
#16 benzo(b)fluoranthene

R.T.: 20.156 min
Delta R.T.: -0.017 min
Response: 138982
Conc: 23.27 ppm



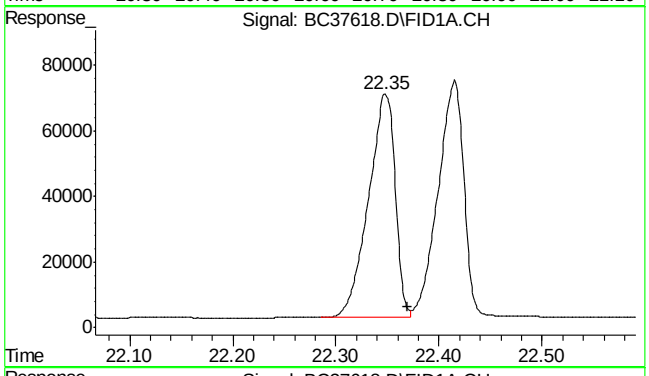
#17 benzo(k)fluoranthene

R.T.: 20.203 min
Delta R.T.: -0.023 min
Response: 140930
Conc: 21.72 ppm



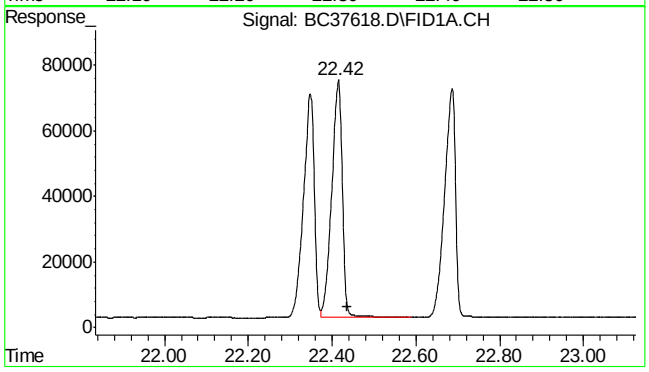
#18 benzo(a)pyrene

R.T.: 20.660 min
Delta R.T.: -0.023 min
Response: 125858
Conc: 20.37 ppm



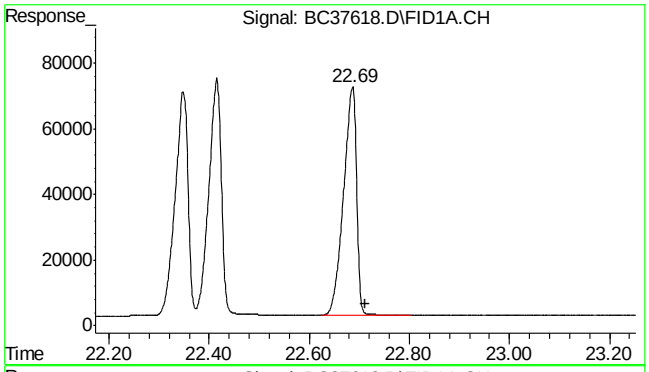
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.347 min
Delta R.T.: -0.023 min
Response: 123137
Conc: 23.95 ppm



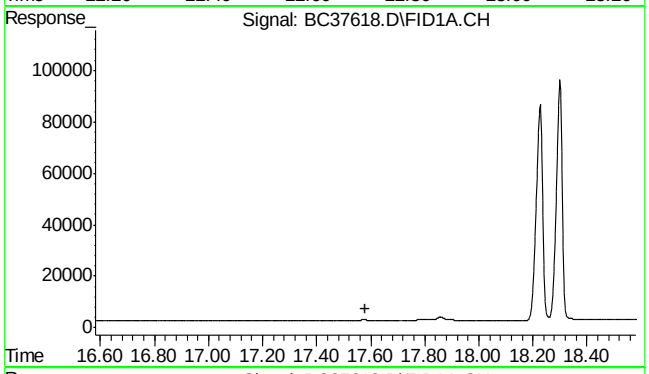
#20 dibenzo(ah)anthracene

R.T.: 22.415 min
Delta R.T.: -0.021 min
Response: 126963
Conc: 25.58 ppm



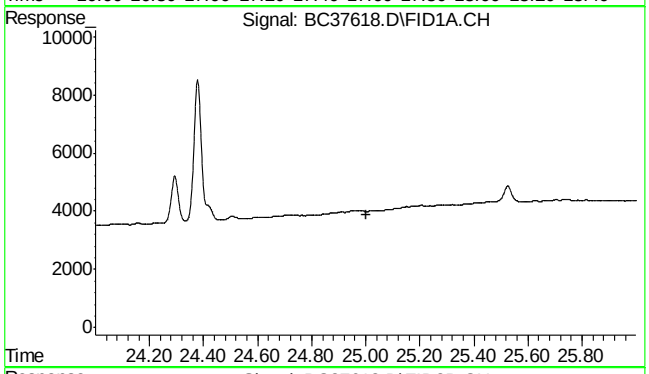
#21 benzo(ghi)perylene

R.T.: 22.687 min
Delta R.T.: -0.024 min
Response: 126091
Conc: 22.78 ppm



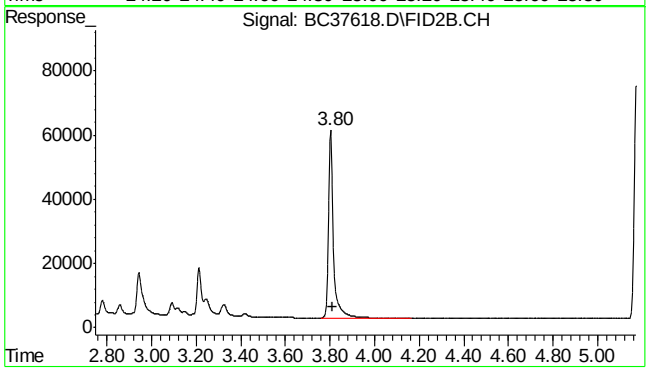
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 90850
Conc: 14.32 ppm m

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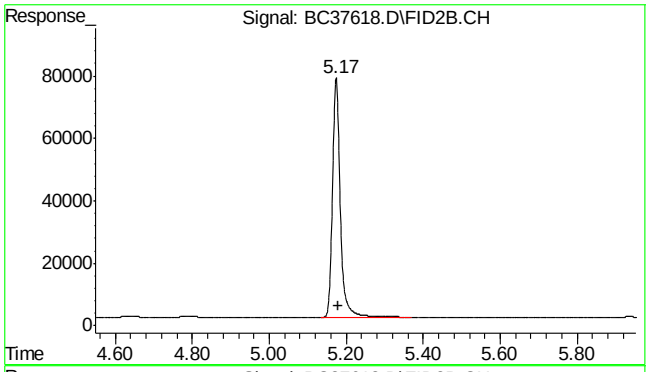
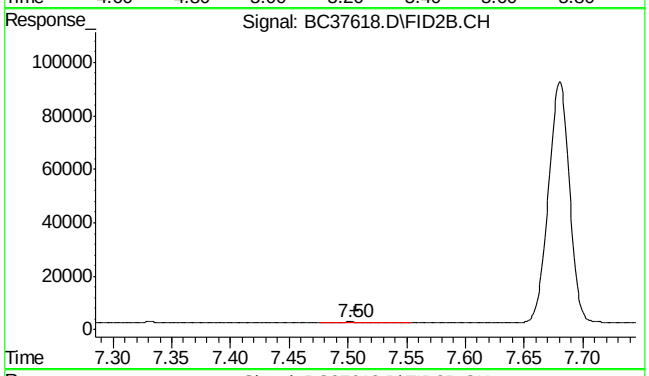


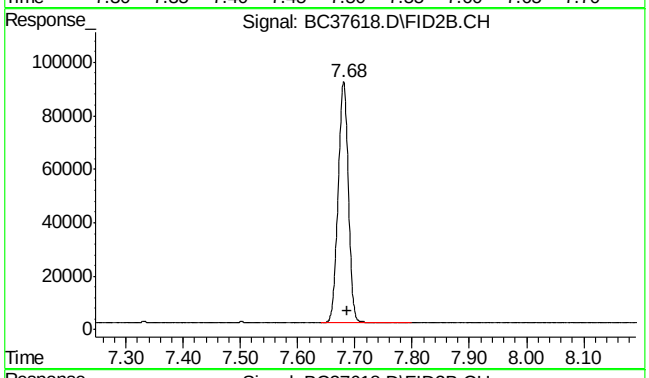
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 107645
Conc: 16.97 ppm m



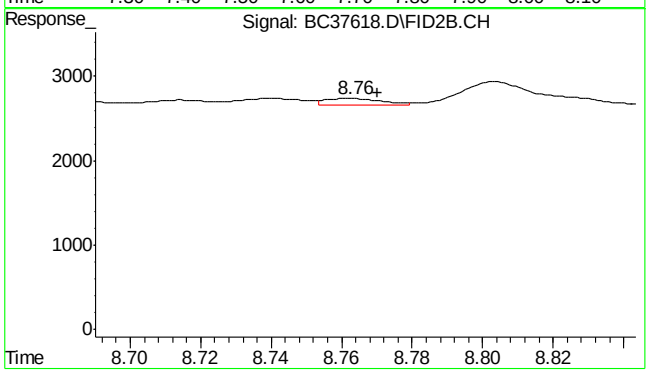
#27 naphthalene #2

R.T.: 7.502 min
Delta R.T.: -0.004 min
Response: 330
Conc: 0.05 ppm m



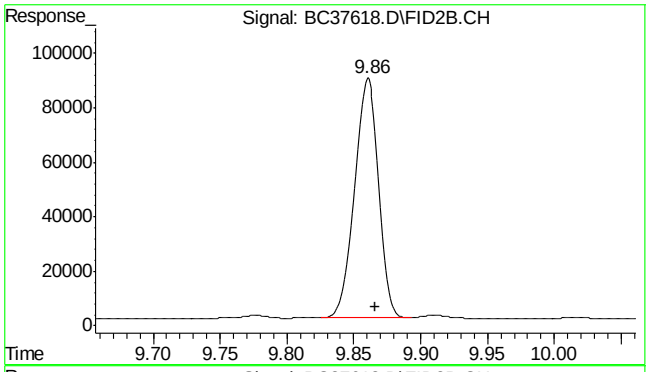
#28 c-12

R.T.: 7.680 min
Delta R.T.: -0.007 min
Response: 111406
Conc: 17.56 ppm



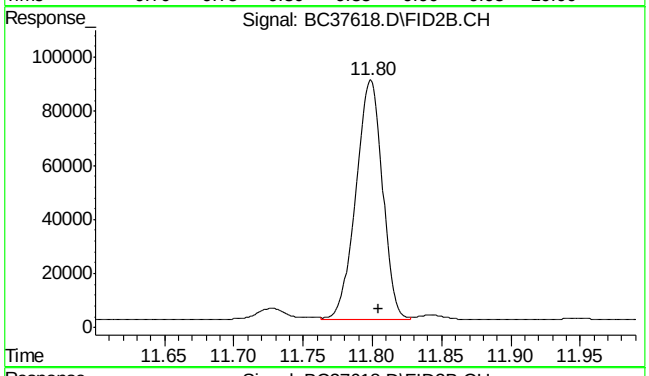
#29 2-methylnaphthalene #2

R.T.: 8.763 min
Delta R.T.: -0.008 min
Response: 81
Conc: 0.01 ppm m



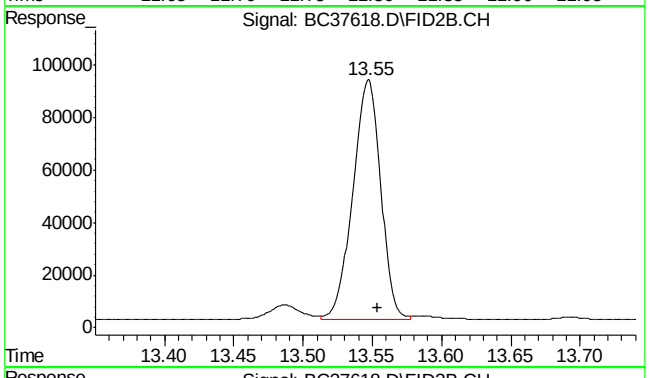
#30 c-14

R.T.: 9.860 min
Delta R.T.: -0.006 min
Response: 112430
Conc: 17.72 ppm



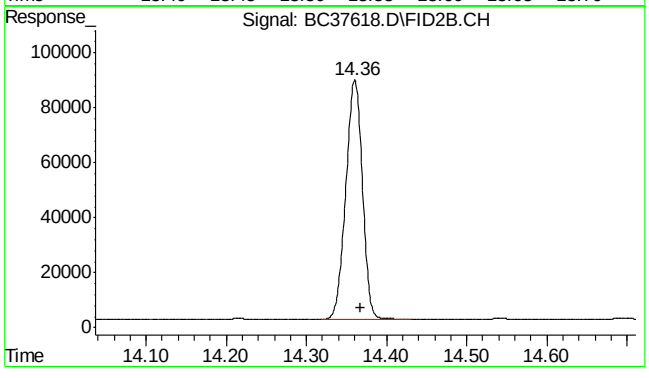
#31 c-16

R.T.: 11.798 min
Delta R.T.: -0.006 min
Response: 119105
Conc: 18.78 ppm



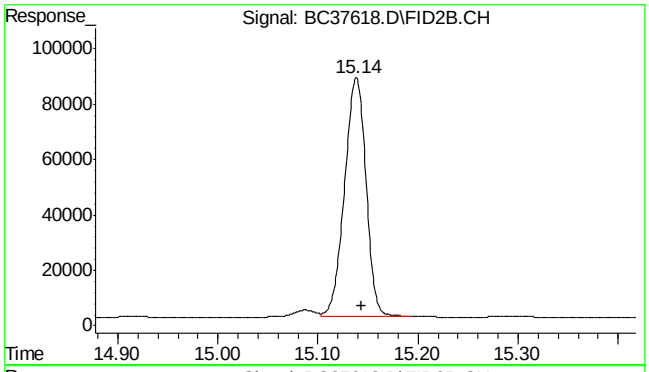
#32 c-18

R.T.: 13.547 min
Delta R.T.: -0.007 min
Response: 128233
Conc: 20.21 ppm



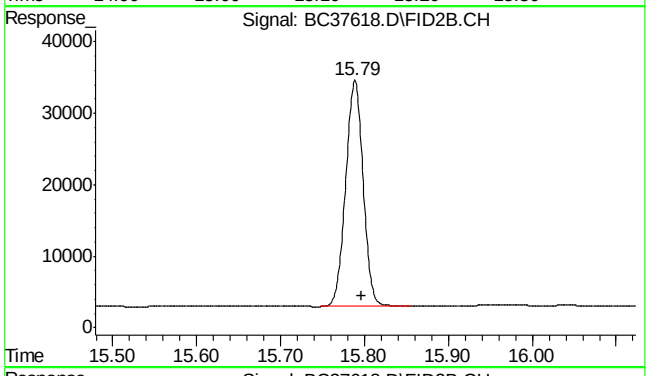
#33 c-19

R.T.: 14.360 min
Delta R.T.: -0.007 min
Response: 125296
Conc: 23.50 ppm



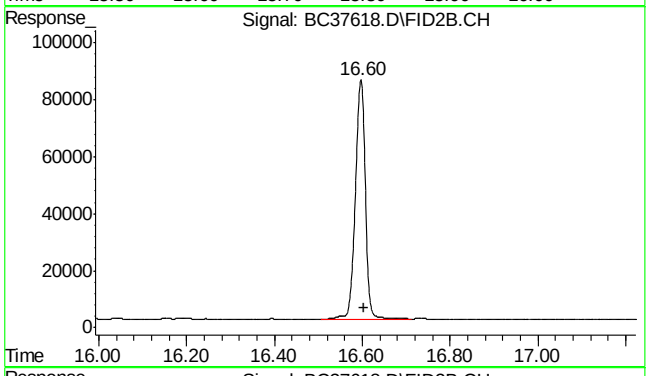
#34 c-20

R.T.: 15.138 min
Delta R.T.: -0.006 min
Response: 128489
Conc: 24.10 ppm



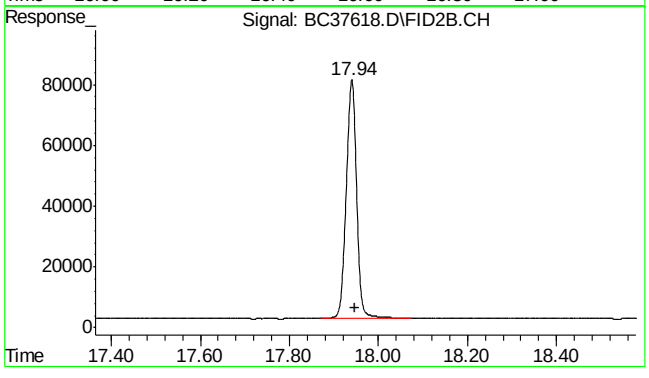
#35 1-chlorooctadecane

R.T.: 15.788 min
Delta R.T.: -0.008 min
Response: 46186
Conc: 10.07 ppm



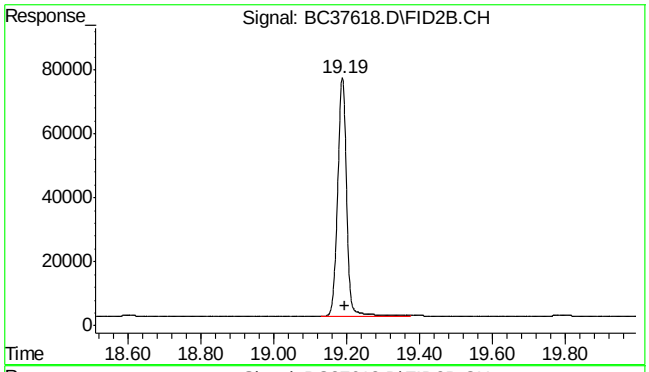
#36 c-22

R.T.: 16.597 min
Delta R.T.: -0.006 min
Response: 132403
Conc: 24.83 ppm



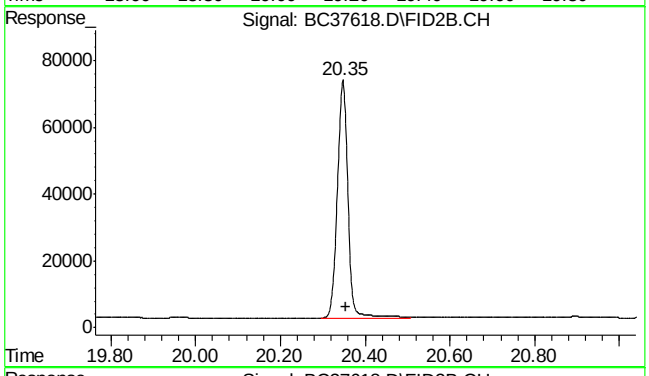
#37 c-24

R.T.: 17.940 min
Delta R.T.: -0.008 min
Response: 127688
Conc: 23.95 ppm



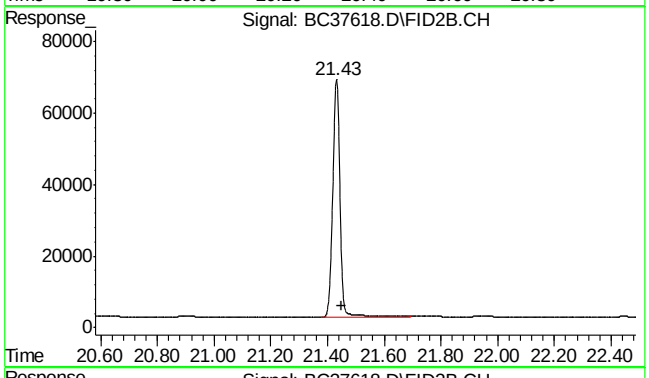
#38 c-26

R.T.: 19.188 min
Delta R.T.: -0.008 min
Response: 127806
Conc: 23.97 ppm



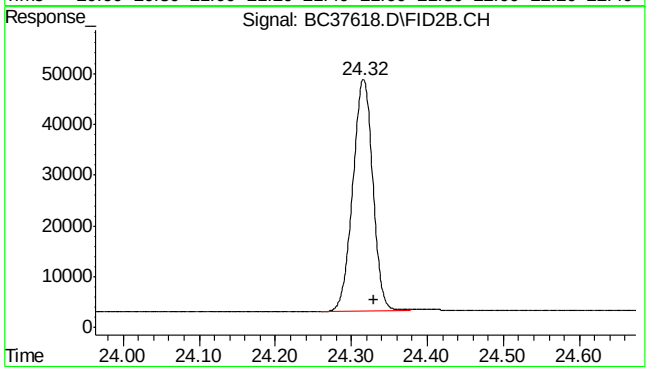
#39 c-28

R.T.: 20.348 min
Delta R.T.: -0.008 min
Response: 123356
Conc: 23.14 ppm



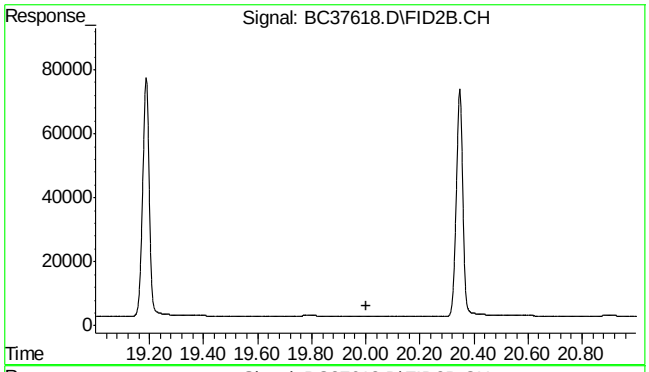
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 119154
Conc: 22.35 ppm m



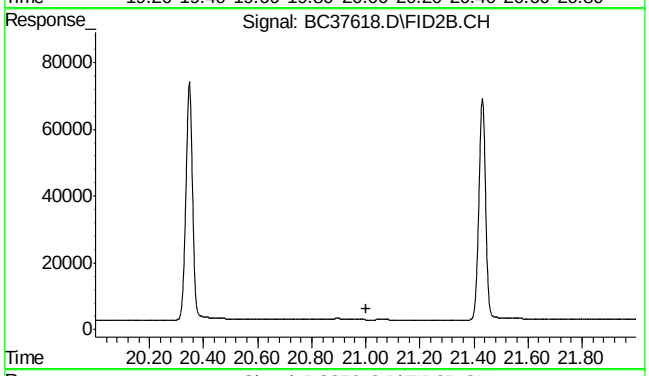
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 83468
Conc: 15.65 ppm m



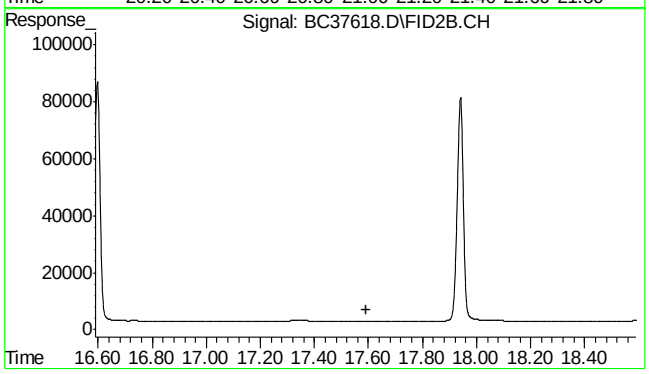
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.3.2 10

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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37620.D\FID1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\BC37620.D\FID2B.CH
Acq On : 11 Mar 2010 10:47 pm Operator: KimD
Sample : op20804-msd ref Inst : GCBC
Misc : op20804,gbc1915,11.15,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:55:44 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	81556	13.821 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	69.10%
6) s 2-bromonaphthalene	10.45	54345	14.352 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	71.76%
11) s o-terphenyl	14.22	106650	14.925 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	74.63%
35) s 1-chlorooctadecane	15.79	45734	9.976 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	49.88%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	2237456	354.360 ppm
2) naphthalene	7.29	93435	14.057 ppm
3) 2-methylnaphthalene	8.57	94843	14.751 ppm
5) acenaphthylene	10.21	97774	14.466 ppm
7) acenaphthene	10.57	109168	15.263 ppm
8) fluorene	11.51	110657	16.991 ppm
9) phenanthrene	13.27	114847	17.451 ppm
10) anthracene	13.36	110814	16.795 ppm
12) fluoranthene	15.52	126724	18.689 ppm
13) pyrene	15.90	127228	18.204 ppm
14) benzo(a)anthracene	18.22	123052	22.813 ppm
15) chrysene	18.30	126237	18.643 ppm
16) benzo(b)fluoranthene	20.16	124387	20.824 ppm
17) benzo(k)fluoranthene	20.20f	127853	19.705 ppm
18) benzo(a)pyrene	20.66	112362	18.188 ppm
19) indeno(1,2,3-cd)pyrene	22.35	110426	21.481 ppm
20) dibenzo(ah)anthracene	22.41	111773	22.515 ppm
21) benzo(ghi)perylene	22.68f	118830	21.464 ppm
25) h c-9	3.81	757402	119.394 ppm
41) h c-36	24.33	1345175	252.293 ppm

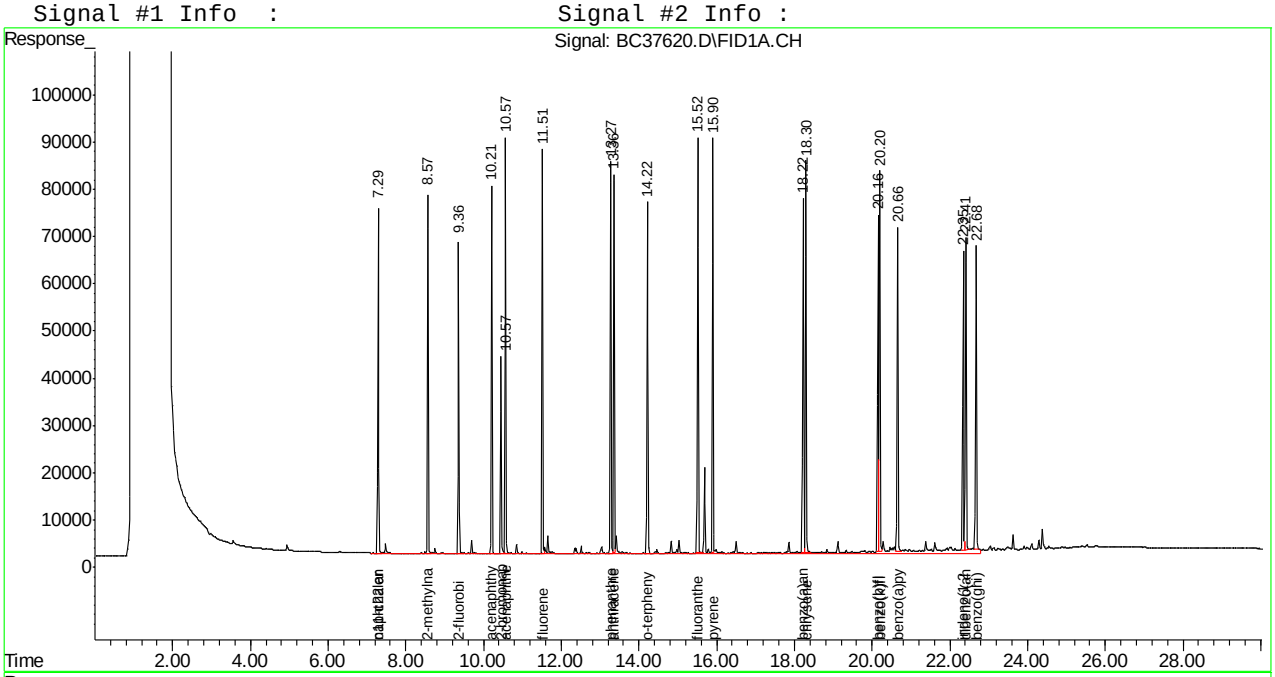
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37620.D EPH031110.M Tue Mar 16 14:27:31 2010 RPGEN1

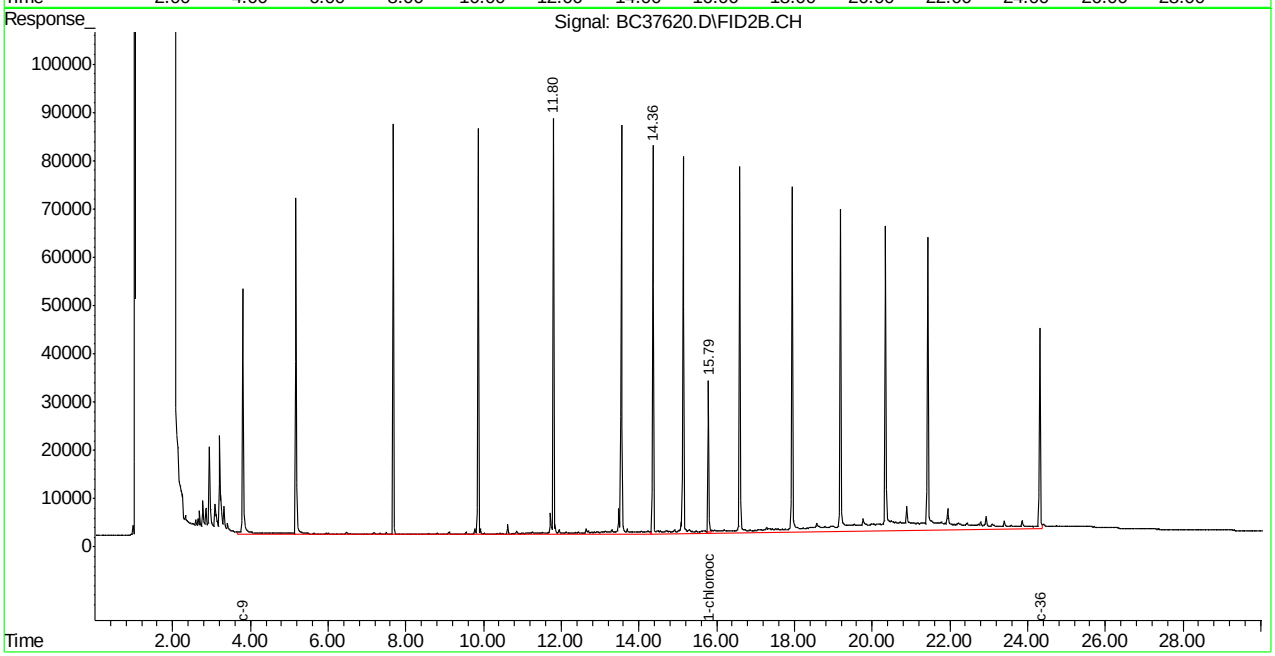
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37620.D\FID1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\BC37620.D\FID2B.CH
Acq On : 11 Mar 2010 10:47 pm Operator: KimD
Sample : op20804-msd ref Inst : GCBC
Misc : op20804,gbc1915,11.15,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 11:00 2010 Quant Results File: EPH031110.RES

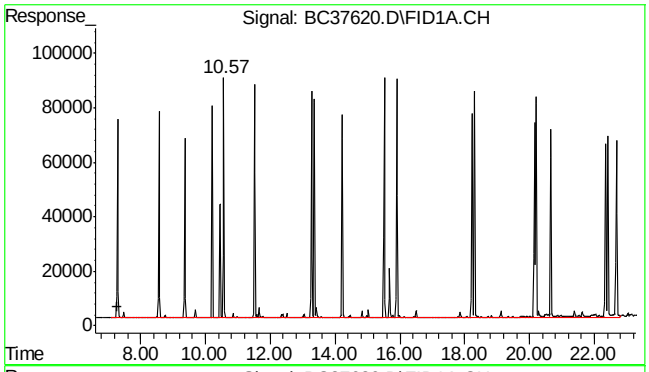
Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



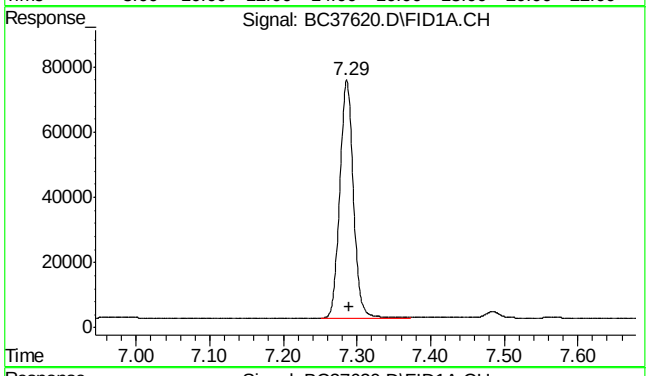


BC37620.D EPH031110.M Tue Mar 16 14:27:32 2010 RPGEN1 Page 2



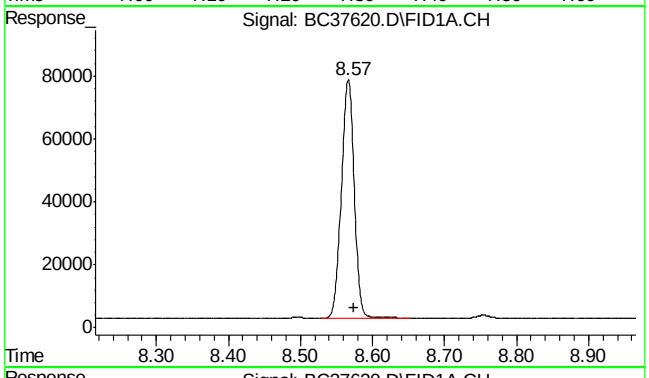
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 2237456
Conc: 354.36 ppm m



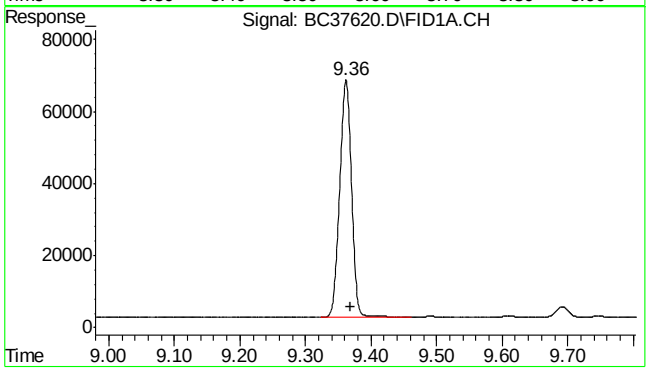
#2 naphthalene

R.T.: 7.286 min
Delta R.T.: -0.005 min
Response: 93435
Conc: 14.06 ppm



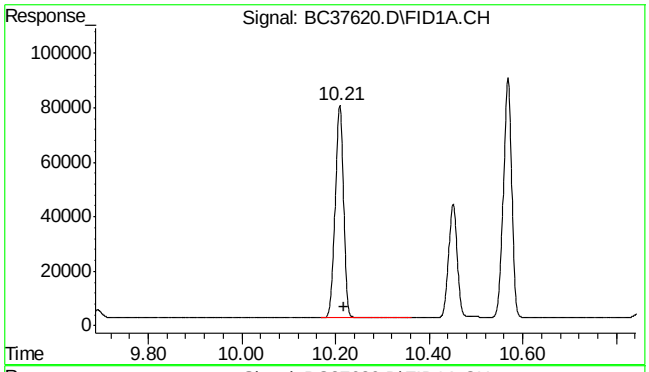
#3 2-methylnaphthalene

R.T.: 8.566 min
Delta R.T.: -0.007 min
Response: 94843
Conc: 14.75 ppm



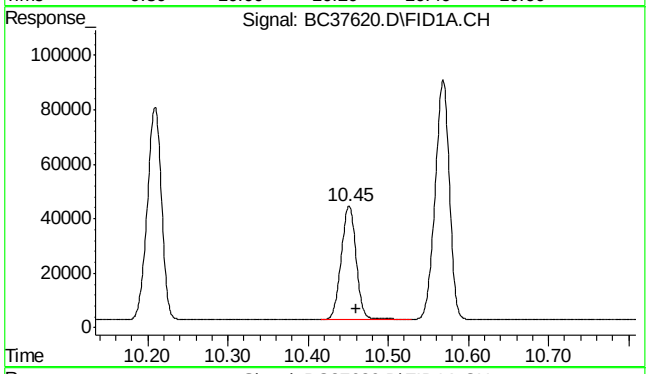
#4 2-fluorobiphenyl

R.T.: 9.361 min
Delta R.T.: -0.007 min
Response: 81556
Conc: 13.82 ppm



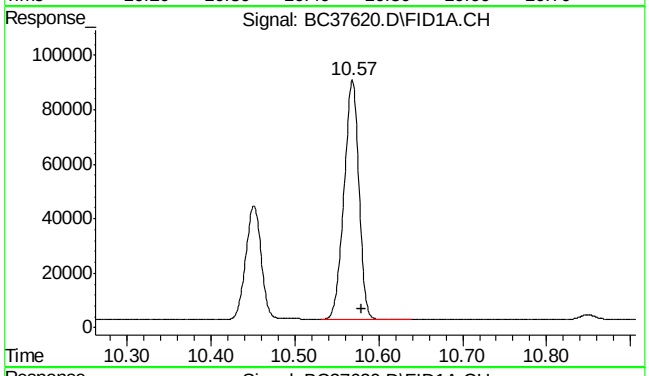
#5 acenaphthylene

R.T.: 10.209 min
Delta R.T.: -0.010 min
Response: 97774
Conc: 14.47 ppm



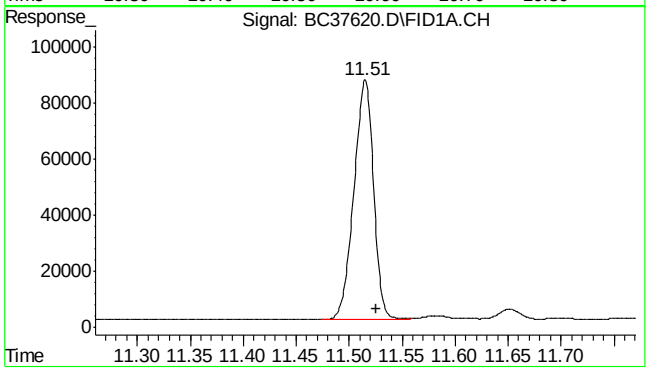
#6 2-bromonaphthalene

R.T.: 10.451 min
Delta R.T.: -0.010 min
Response: 54345
Conc: 14.35 ppm



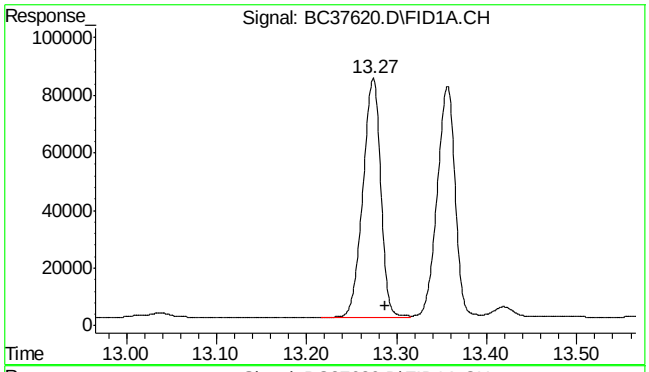
#7 acenaphthene

R.T.: 10.568 min
Delta R.T.: -0.012 min
Response: 109168
Conc: 15.26 ppm



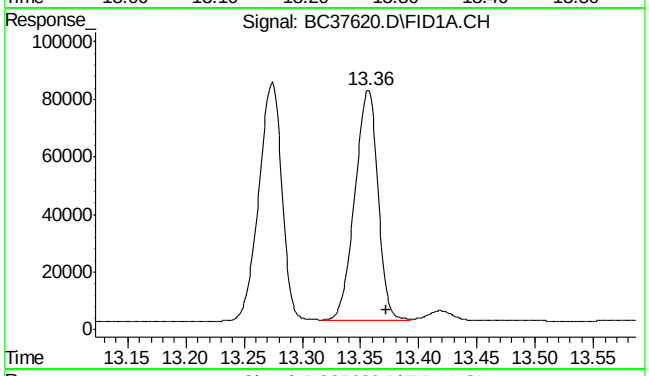
#8 fluorene

R.T.: 11.515 min
Delta R.T.: -0.010 min
Response: 110657
Conc: 16.99 ppm



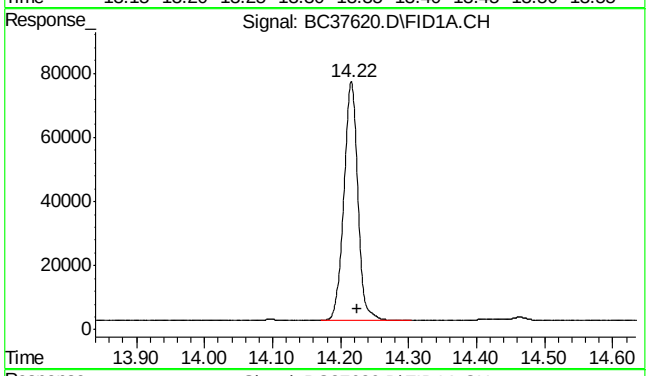
#9 phenanthrene

R.T.: 13.274 min
Delta R.T.: -0.013 min
Response: 114847
Conc: 17.45 ppm



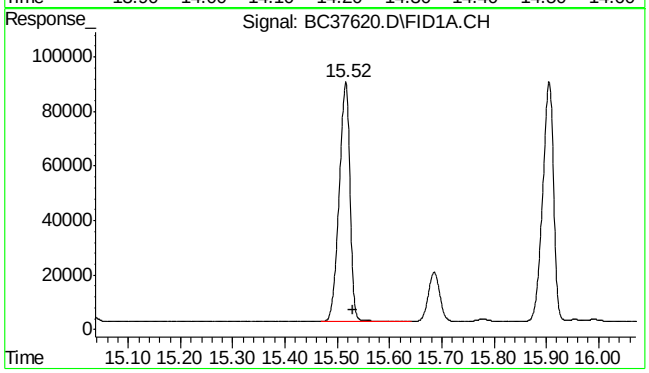
#10 anthracene

R.T.: 13.356 min
Delta R.T.: -0.015 min
Response: 110814
Conc: 16.80 ppm



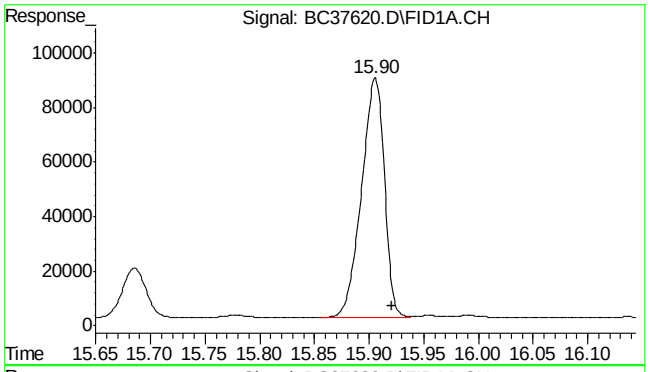
#11 o-terphenyl

R.T.: 14.216 min
Delta R.T.: -0.010 min
Response: 106650
Conc: 14.93 ppm



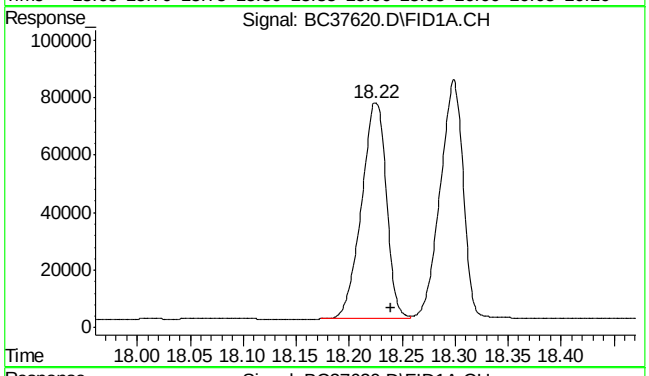
#12 fluoranthene

R.T.: 15.516 min
Delta R.T.: -0.014 min
Response: 126724
Conc: 18.69 ppm



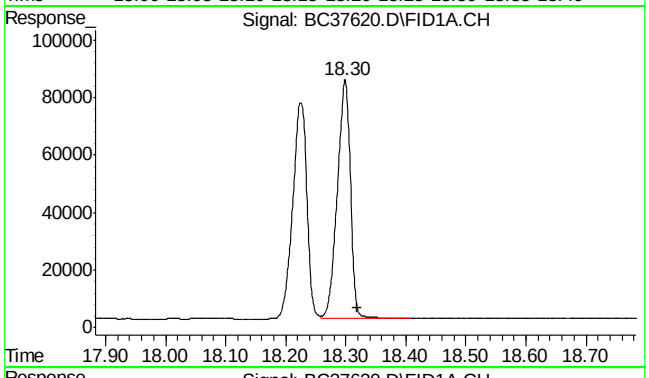
#13 pyrene

R.T.: 15.905 min
Delta R.T.: -0.016 min
Response: 127228
Conc: 18.20 ppm



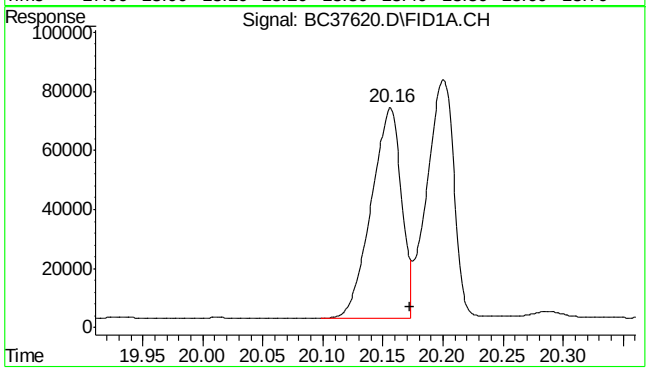
#14 benzo(a)anthracene

R.T.: 18.223 min
Delta R.T.: -0.016 min
Response: 123052
Conc: 22.81 ppm



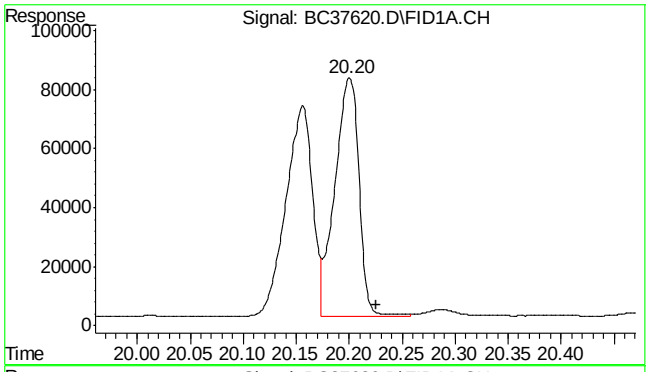
#15 chrysene

R.T.: 18.298 min
Delta R.T.: -0.021 min
Response: 126237
Conc: 18.64 ppm



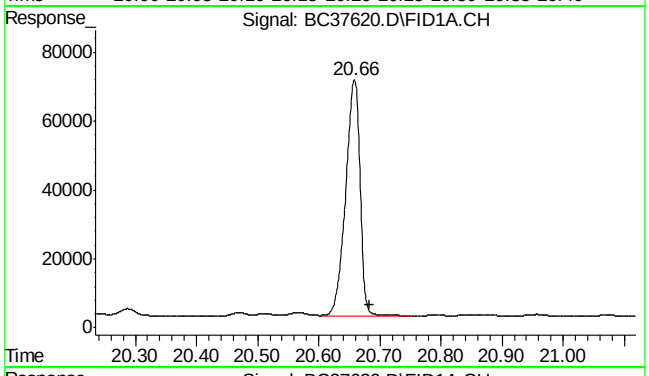
#16 benzo(b)fluoranthene

R.T.: 20.156 min
Delta R.T.: -0.017 min
Response: 124387
Conc: 20.82 ppm



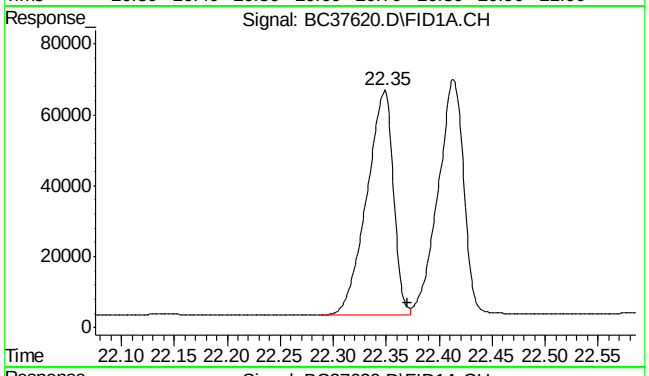
#17 benzo(k)fluoranthene

R.T.: 20.200 min
Delta R.T.: -0.026 min
Response: 127853
Conc: 19.71 ppm



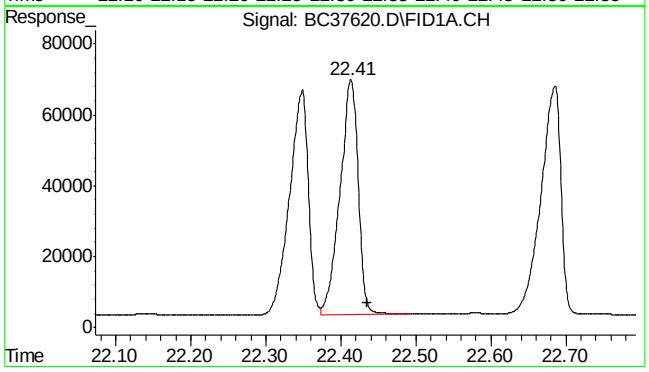
#18 benzo(a)pyrene

R.T.: 20.658 min
Delta R.T.: -0.025 min
Response: 112362
Conc: 18.19 ppm



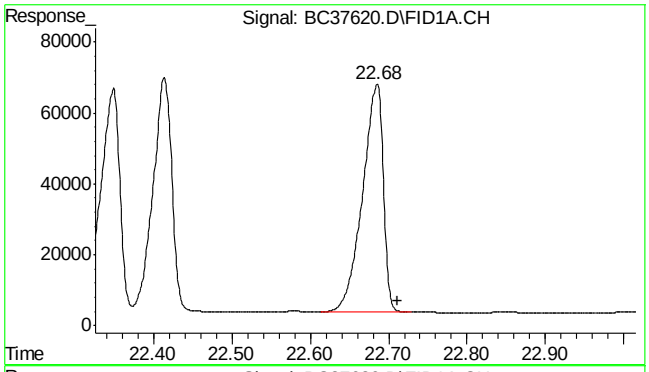
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.349 min
Delta R.T.: -0.021 min
Response: 110426
Conc: 21.48 ppm



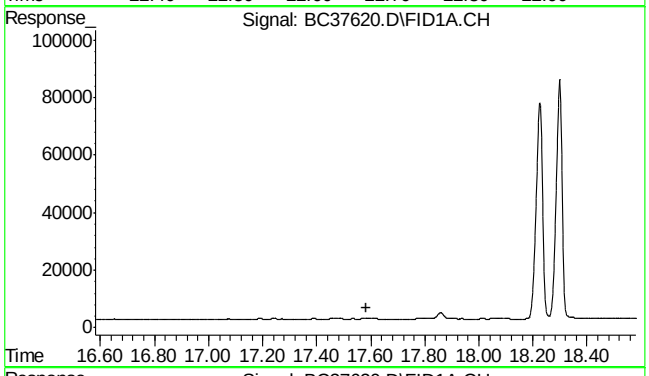
#20 dibenzo(ah)anthracene

R.T.: 22.412 min
Delta R.T.: -0.024 min
Response: 111773
Conc: 22.52 ppm



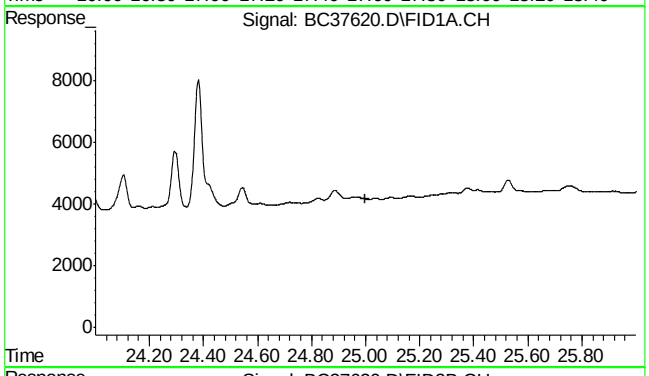
#21 benzo(ghi)perylene

R.T.: 22.685 min
Delta R.T.: -0.026 min
Response: 118830
Conc: 21.46 ppm



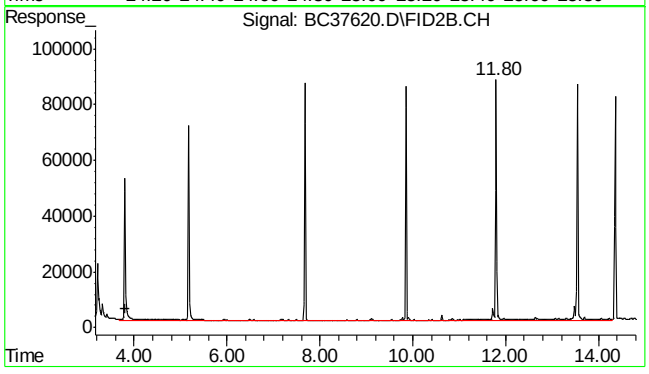
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



#23 BHT

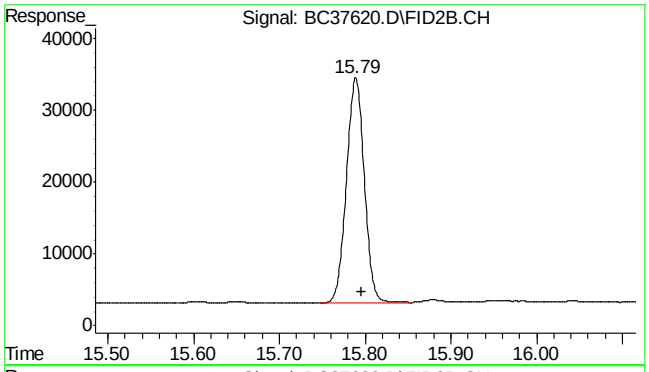
R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



#25 c-9

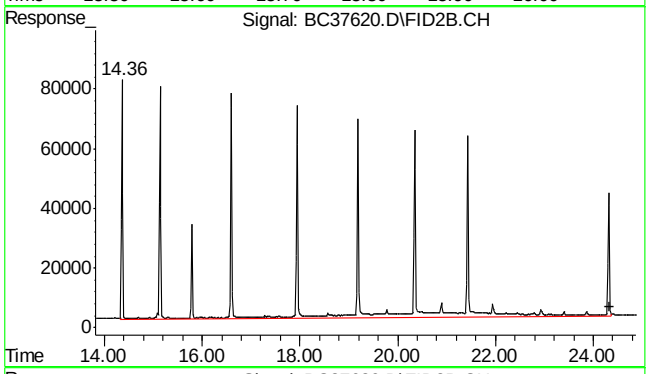
R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 757402
Conc: 119.39 ppm m

10.4.1 10



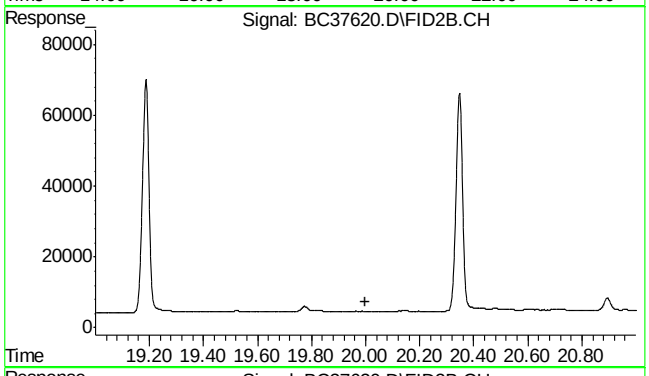
#35 1-chlorooctadecane

R.T.: 15.788 min
Delta R.T.: -0.008 min
Response: 45734
Conc: 9.98 ppm



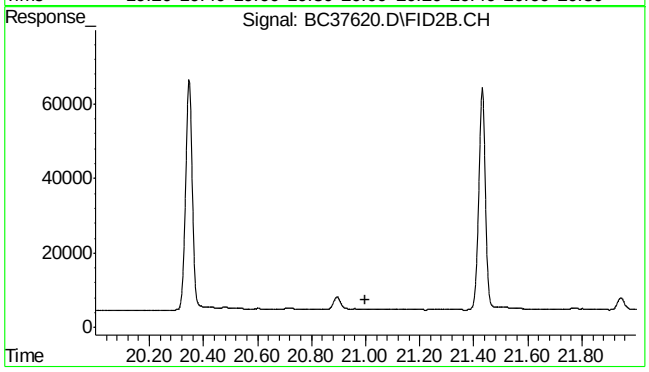
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 1345175
Conc: 252.29 ppm m



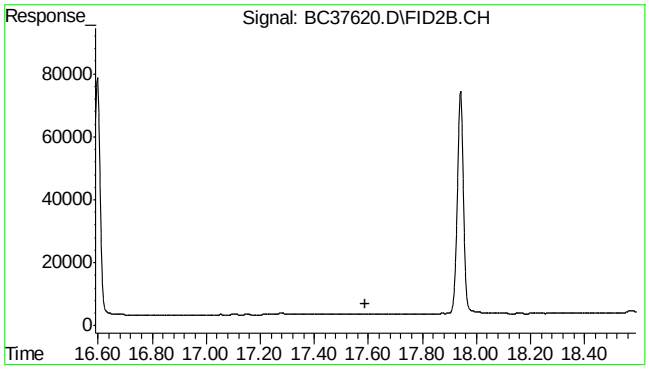
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.4.1

10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37679A.D\FID1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\BC37679A.D\FID2B.CH
Acq On : 16 Mar 2010 11:39 am Operator: KimD
Sample : op20804-ms,re-extract Inst : GCBC
Misc : op20804,gbc1917,11.20,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 16 12:10:07 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	95589	16.199 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	81.00%
6) s 2-bromonaphthalene	10.45	59764	15.783 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	78.92%
11) s o-terphenyl	14.22	119109	16.669 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	83.34%
35) s 1-chlorooctadecane	15.79	56397	12.302 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	61.51%
Target Compounds			
1) h c11-c22 aromatics (Unadj.)	7.30	2508494	397.286 ppm
2) naphthalene	7.29	107836	16.223 ppm
3) 2-methylnaphthalene	8.57	110296	17.155 ppm
5) acenaphthylene	10.21	113384	16.775 ppm
7) acenaphthene	10.57	126750	17.721 ppm
8) fluorene	11.52	127035	19.506 ppm
9) phenanthrene	13.28	129207	19.633 ppm
10) anthracene	13.36	123037	18.648 ppm
12) fluoranthene	15.52	144697	21.339 ppm
13) pyrene	15.91	145834	20.866 ppm
14) benzo(a)anthracene	18.23	141901	26.308 ppm
15) chrysene	18.30	145555	21.496 ppm
16) benzo(b)fluoranthene	20.16	144325	24.162 ppm
17) benzo(k)fluoranthene	20.21	148768	22.929 ppm
18) benzo(a)pyrene	20.67	131035	21.211 ppm
19) indeno(1,2,3-cd)pyrene	22.36	129595	25.210 ppm
20) dibenzo(ah)anthracene	22.42	130946	26.378 ppm
21) benzo(ghi)perylene	22.69	139394	25.179 ppm
25) h c-9	3.81	777011	122.485 ppm
41) h c-36	24.33	1314472	246.534 ppm

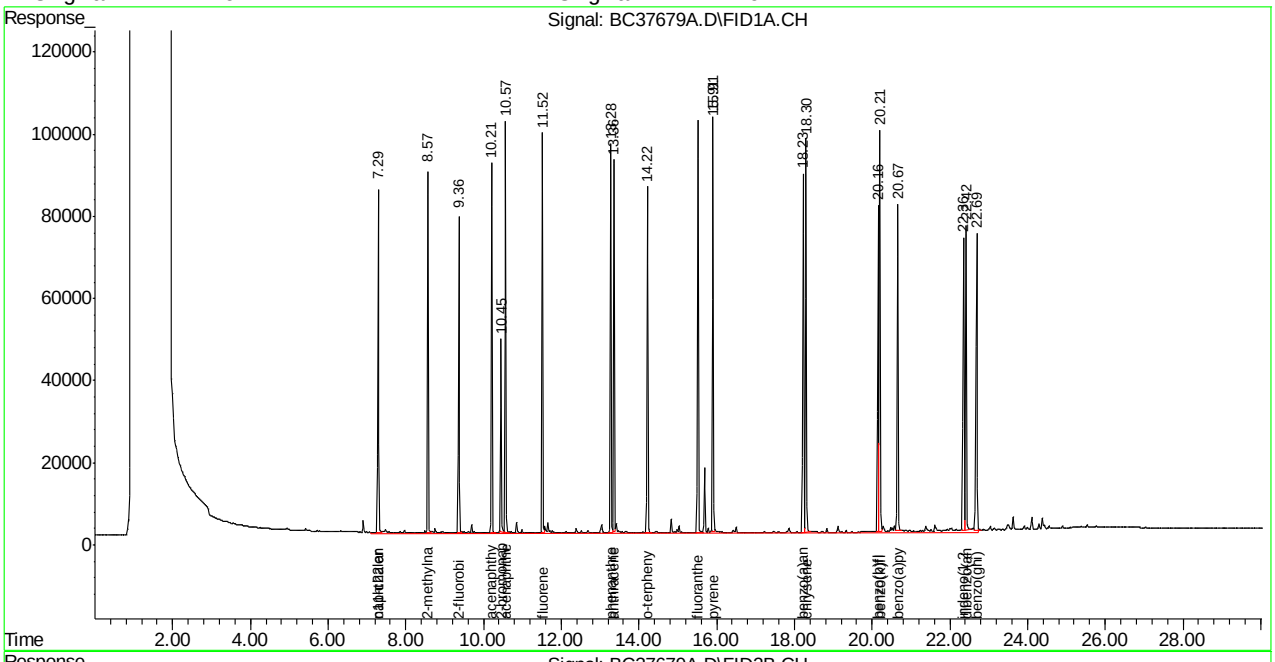
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37679A.D EPH031510.M Tue Mar 16 12:12:53 2010 RPGEN1

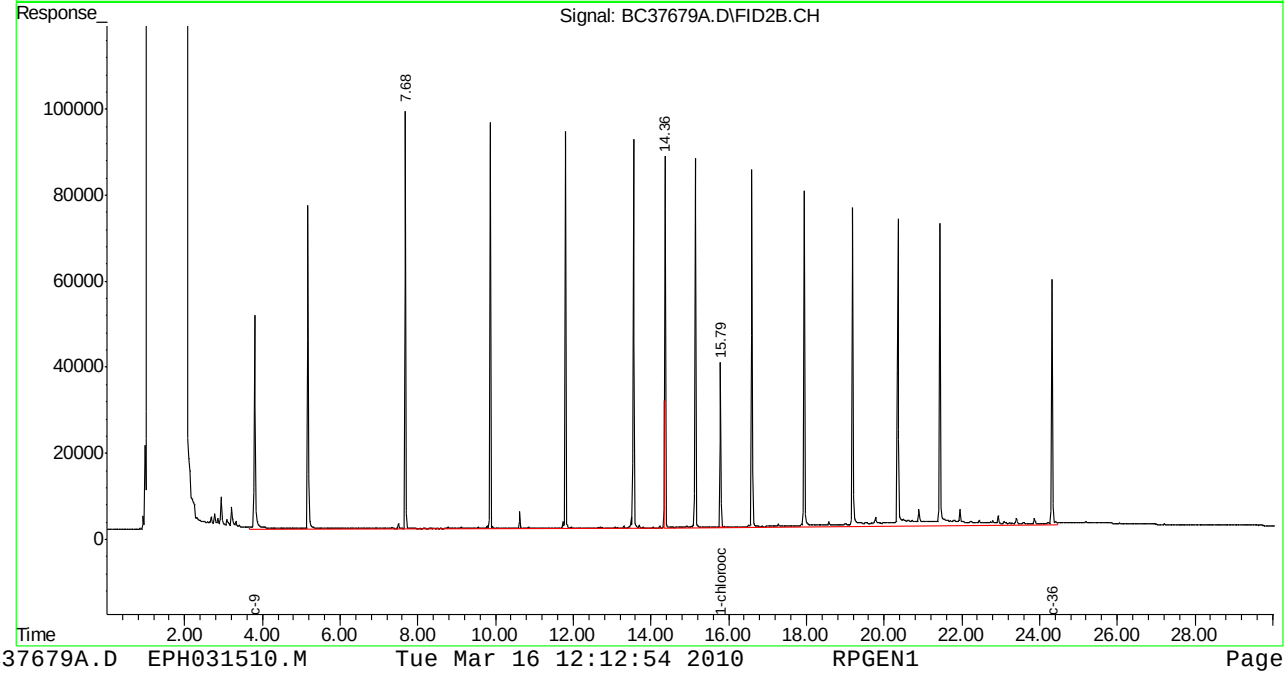
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37679A.D\FID1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\BC37679A.D\FID2B.CH
Acq On : 16 Mar 2010 11:39 am Operator: KimD
Sample : op20804-ms,re-extract Inst : GCBC
Misc : op20804,gbc1917,11.20,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 16 12:12 2010 Quant Results File: EPH031510.RES

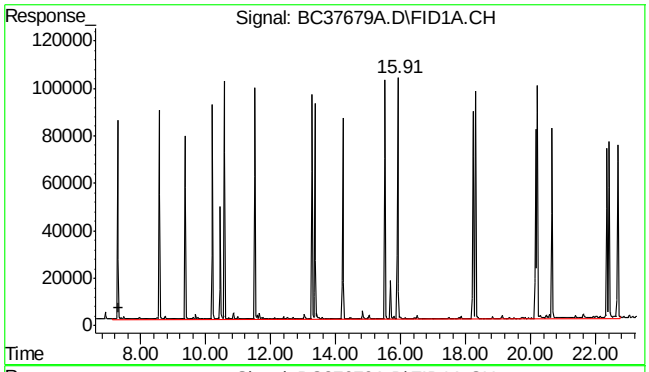
Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



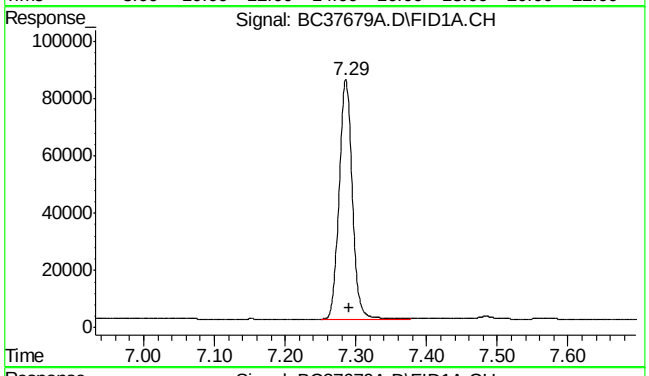


ACCUTEST Laboratories F71731



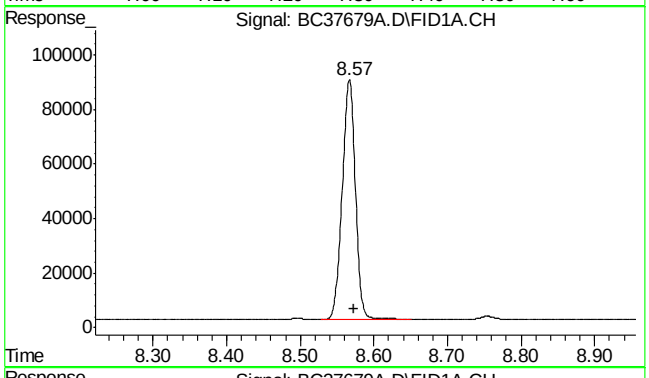
#1 c11-c22 aromatics (Unadj.)

R.T.: 7.300 min
Delta R.T.: 0.000 min
Response: 2508494
Conc: 397.29 ppm m



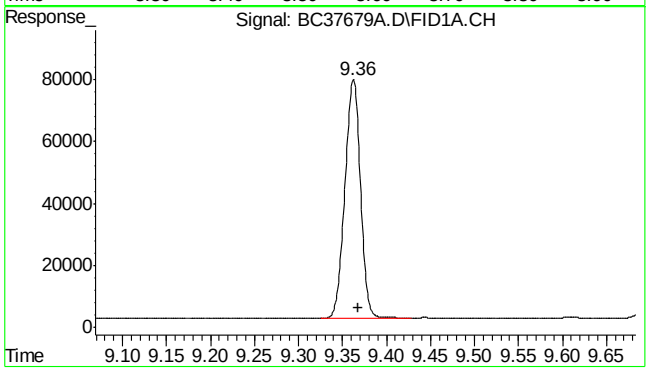
#2 naphthalene

R.T.: 7.286 min
Delta R.T.: -0.004 min
Response: 107836
Conc: 16.22 ppm



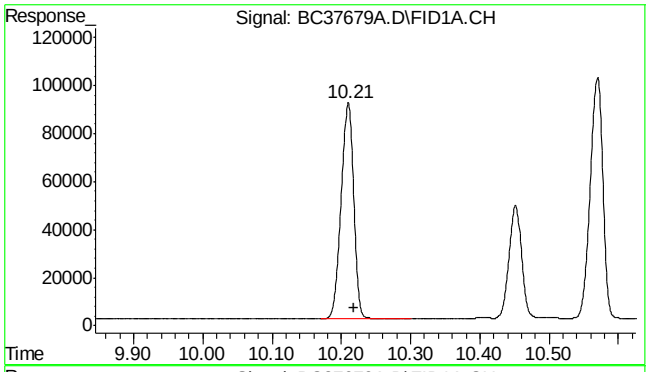
#3 2-methylnaphthalene

R.T.: 8.567 min
Delta R.T.: -0.007 min
Response: 110296
Conc: 17.15 ppm



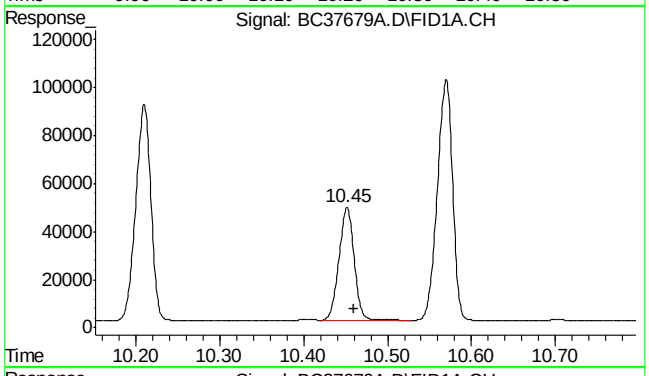
#4 2-fluorobiphenyl

R.T.: 9.362 min
Delta R.T.: -0.007 min
Response: 95589
Conc: 16.20 ppm



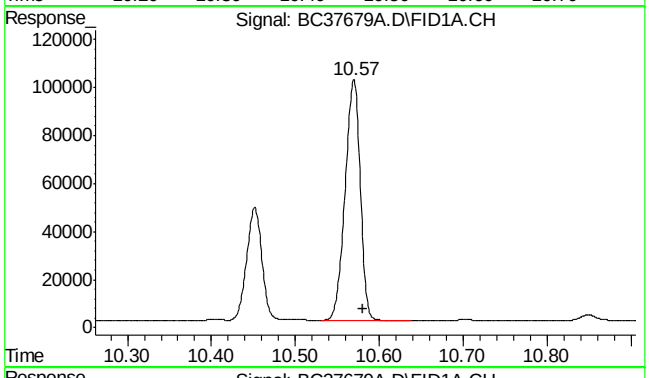
#5 acenaphthylene

R.T.: 10.209 min
Delta R.T.: -0.009 min
Response: 113384
Conc: 16.78 ppm



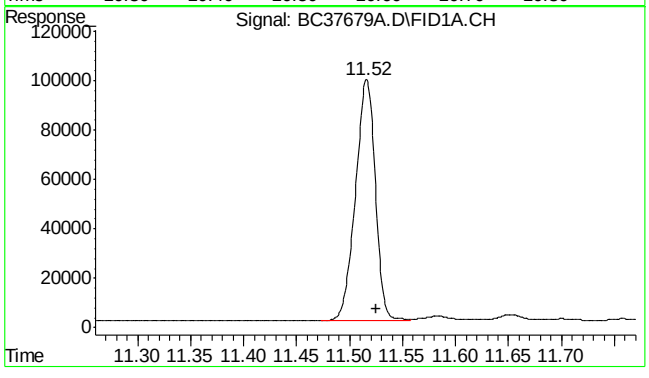
#6 2-bromonaphthalene

R.T.: 10.451 min
Delta R.T.: -0.009 min
Response: 59764
Conc: 15.78 ppm



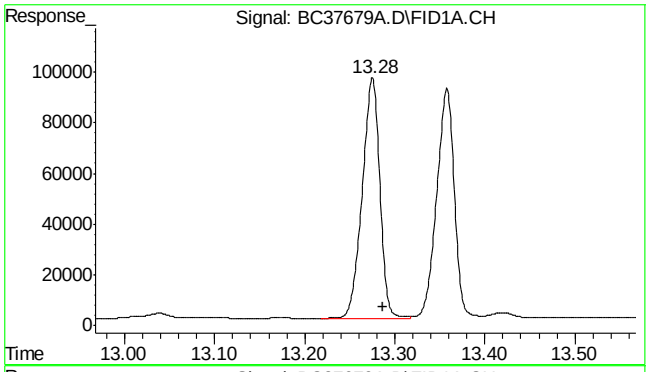
#7 acenaphthene

R.T.: 10.570 min
Delta R.T.: -0.010 min
Response: 126750
Conc: 17.72 ppm



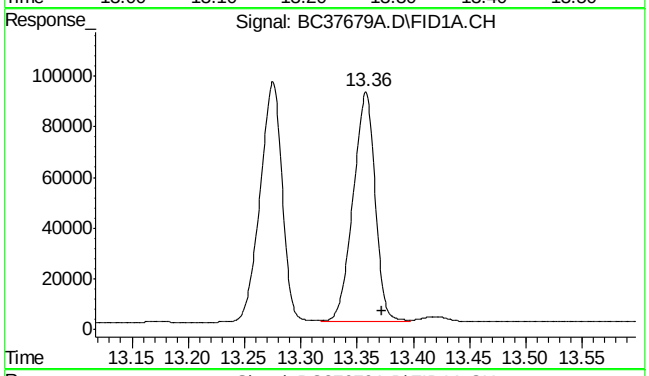
#8 fluorene

R.T.: 11.516 min
Delta R.T.: -0.009 min
Response: 127035
Conc: 19.51 ppm



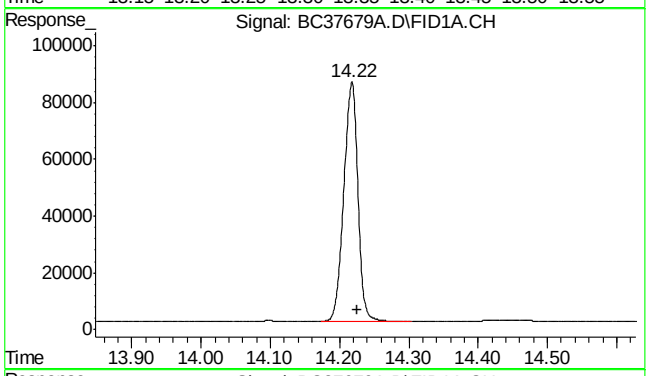
#9 phenanthrene

R.T.: 13.275 min
Delta R.T.: -0.012 min
Response: 129207
Conc: 19.63 ppm



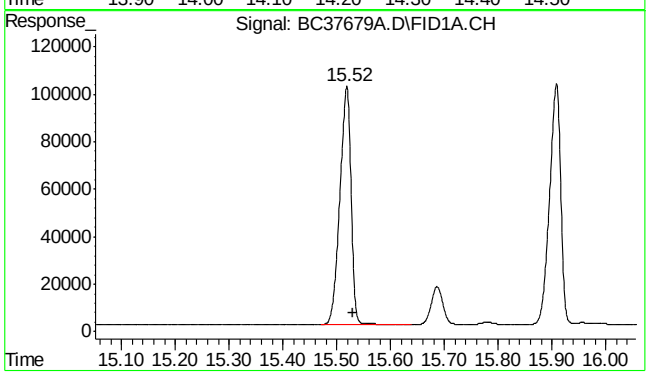
#10 anthracene

R.T.: 13.358 min
Delta R.T.: -0.014 min
Response: 123037
Conc: 18.65 ppm



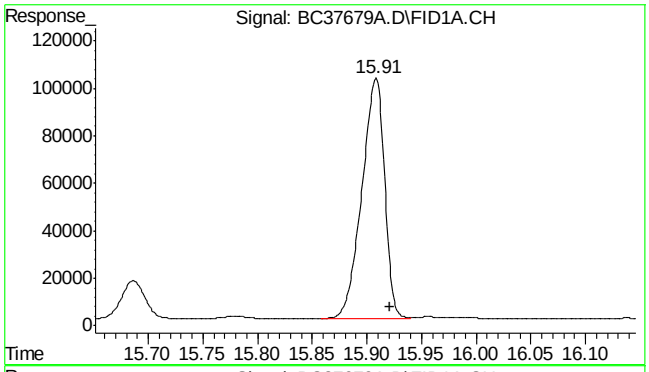
#11 o-terphenyl

R.T.: 14.218 min
Delta R.T.: -0.008 min
Response: 119109
Conc: 16.67 ppm



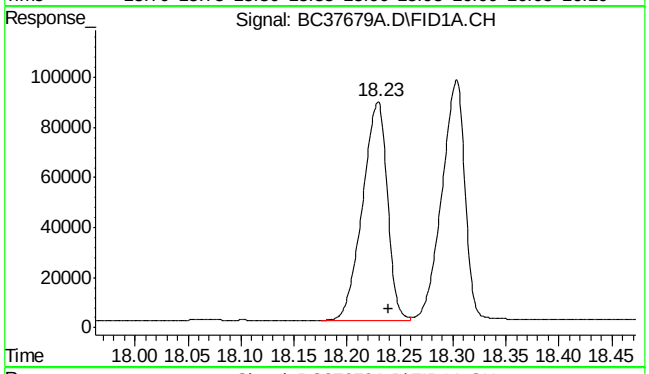
#12 fluoranthene

R.T.: 15.518 min
Delta R.T.: -0.012 min
Response: 144697
Conc: 21.34 ppm



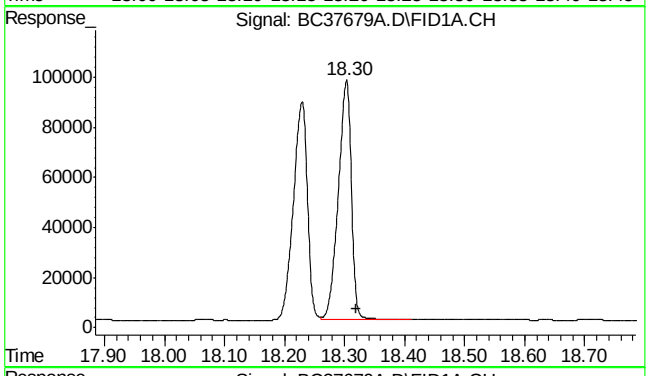
#13 pyrene

R.T.: 15.908 min
Delta R.T.: -0.013 min
Response: 145834
Conc: 20.87 ppm



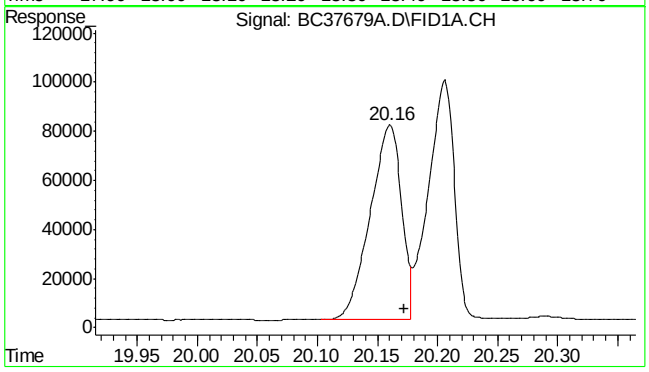
#14 benzo(a)anthracene

R.T.: 18.229 min
Delta R.T.: -0.010 min
Response: 141901
Conc: 26.31 ppm



#15 chrysene

R.T.: 18.303 min
Delta R.T.: -0.016 min
Response: 145555
Conc: 21.50 ppm



#16 benzo(b)fluoranthene

R.T.: 20.160 min
Delta R.T.: -0.013 min
Response: 144325
Conc: 24.16 ppm

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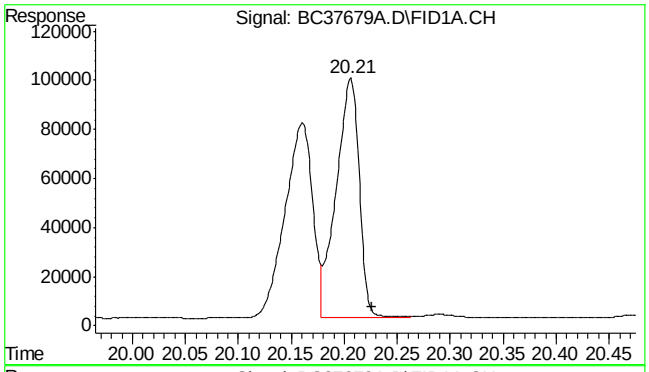
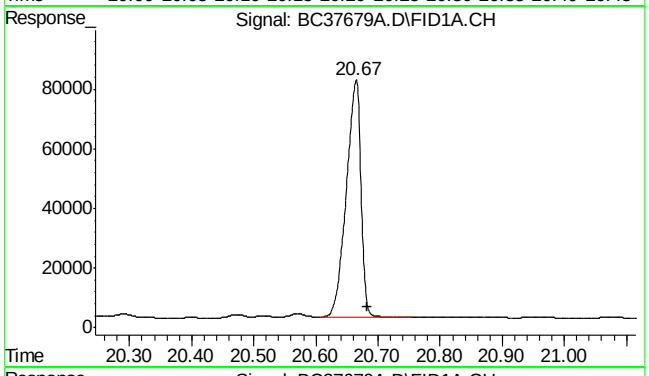


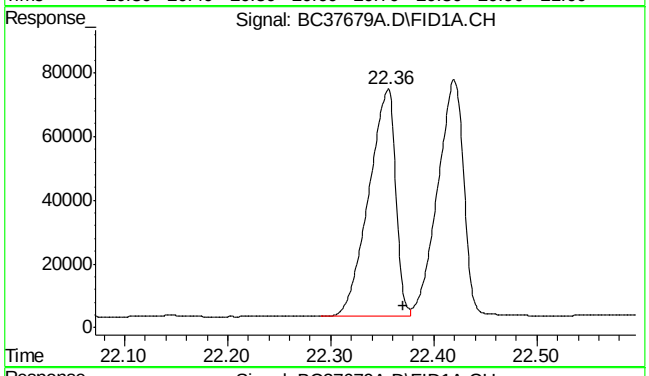
#17 benzo(k)fluoranthene

R.T.: 20.206 min
Delta R.T.: -0.020 min
Response: 148768
Conc: 22.93 ppm



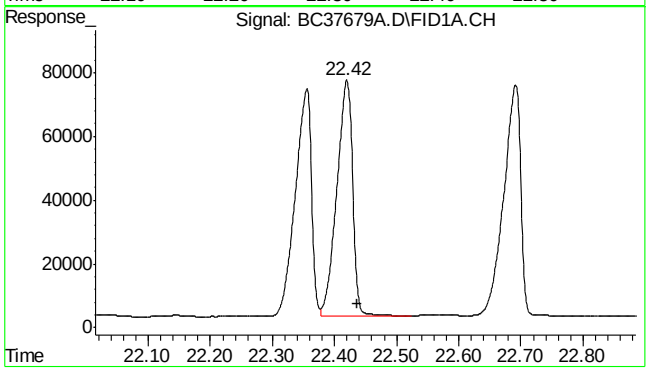
#18 benzo(a)pyrene

R.T.: 20.665 min
Delta R.T.: -0.018 min
Response: 131035
Conc: 21.21 ppm



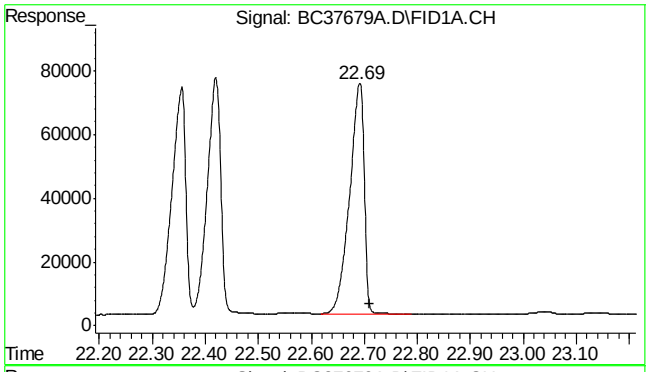
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.356 min
Delta R.T.: -0.014 min
Response: 129595
Conc: 25.21 ppm



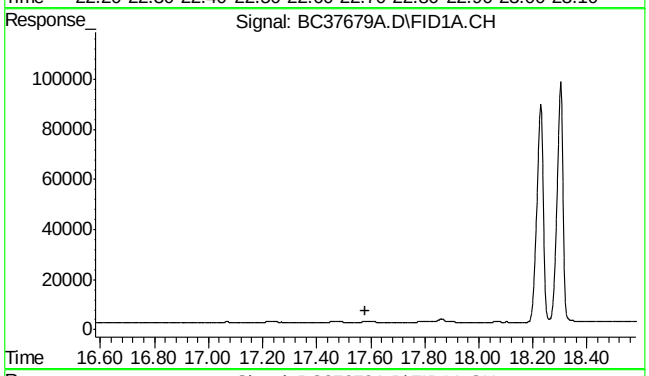
#20 dibenzo(ah)anthracene

R.T.: 22.419 min
Delta R.T.: -0.017 min
Response: 130946
Conc: 26.38 ppm



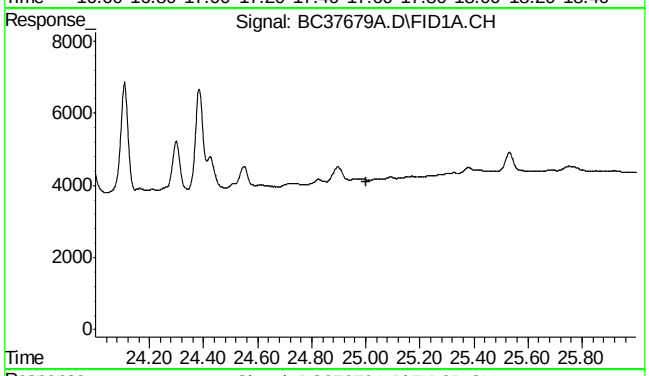
#21 benzo(ghi)perylene

R.T.: 22.691 min
Delta R.T.: -0.020 min
Response: 139394
Conc: 25.18 ppm



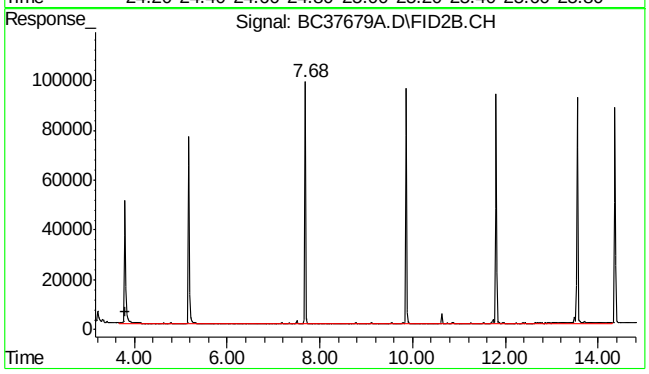
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 777011
Conc: 122.48 ppm m

10.4.2 10

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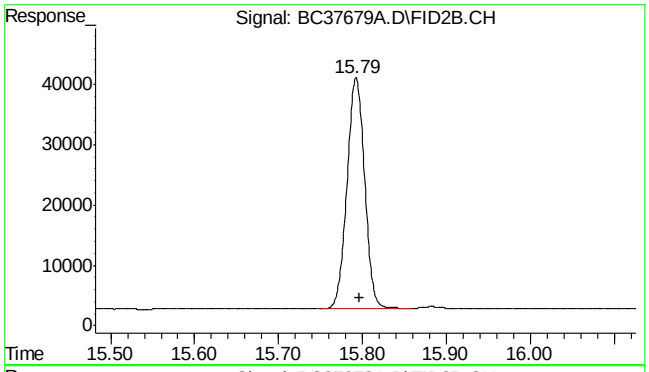
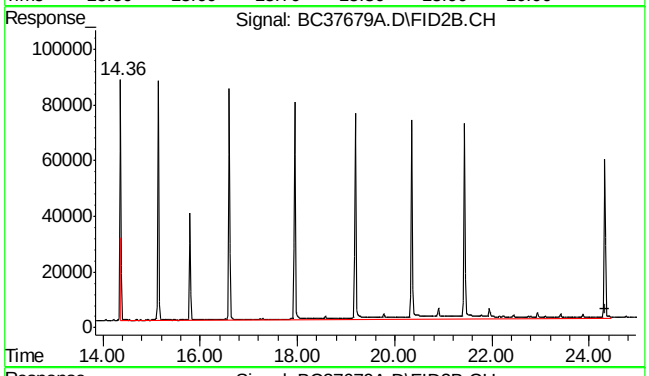


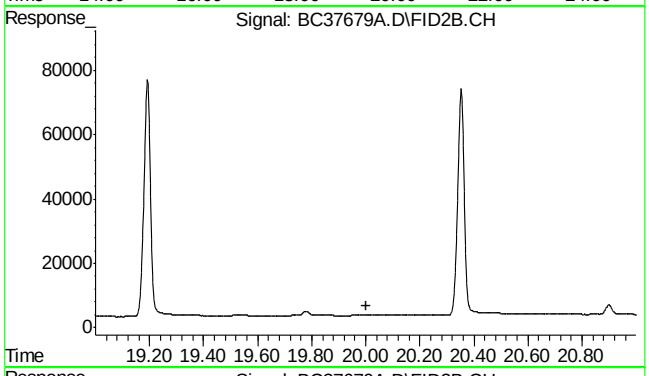
#35 1-chlorooctadecane

R.T.: 15.792 min
Delta R.T.: -0.004 min
Response: 56397
Conc: 12.30 ppm



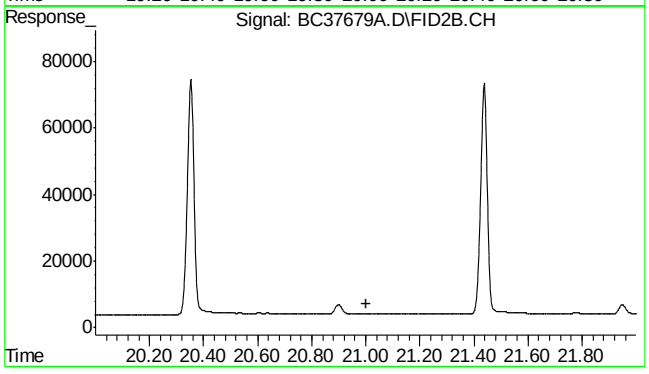
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 1314472
Conc: 246.53 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.

10.4.2 10

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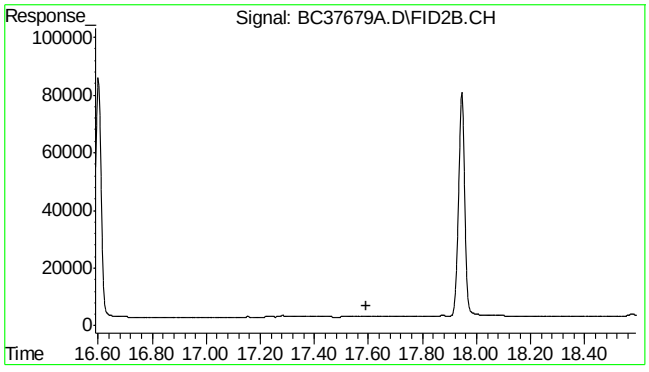

#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.4.2

10

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Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/15/10 13:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37513.D\FID1A.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37513.D\FID2B.CH
Acq On : 3-8-10 06:42:59 PM Operator: KimD
Sample : ic1911-200 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:36:07 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:35:31 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
4) s	2-fluorobiphenyl	9.40	1171514	199.959	ppm	m
Spiked Amount	20.000 Range	40 - 140	Recovery	= 999.79%#		
6) s	2-bromonaphthalene	10.49	789245	199.689	ppm	
Spiked Amount	20.000 Range	40 - 140	Recovery	= 998.44%#		
11) s	o-terphenyl	14.26	1346690	199.742	ppm	
Spiked Amount	20.000 Range	40 - 140	Recovery	= 998.71%#		
22) s	bht	0.00	0	N.D.	ppm	d
23) s	BHT	0.00	0	N.D.	ppm	d
35) s	1-chlorooctadecane	15.83	1011941	199.925	ppm	
Spiked Amount	20.000 Range	40 - 140	Recovery	= 999.63%#		
42) s	BHT	0.00	0	N.D.	ppm	d
	Target Compounds					
1) h	c11-c22 aromatics (Unadj.)	0.00	0	N.D.	ppm	
2)	naphthalene	7.32	1310490	200.065	ppm	
3)	2-methylnaphthalene	8.60	1279666	200.012	ppm	m
5)	acenaphthylene	10.25	1296610	199.988	ppm	
7)	acenaphthene	10.62	1342323	199.309	ppm	
8)	fluorene	11.56	1281640	199.698	ppm	
9)	phenanthrene	13.33	1328053	200.213	ppm	
10)	anthracene	13.42	1225798	198.691	ppm	
12)	fluoranthene	15.58	1253723	200.095	ppm	
13)	pyrene	15.97	1282937	200.000	ppm	
14)	benzo(a)anthracene	18.29	1093094	201.007	ppm	m
15)	chrysene	18.38	1164673	200.103	ppm	
16)	benzo(b)fluoranthene	20.23	1176630	199.626	ppm	
17)	benzo(k)fluoranthene	20.30	1029203	202.201	ppm	
18)	benzo(a)pyrene	20.74	1042578	196.738	ppm	
19)	indeno(1,2,3-cd)pyrene	22.42	909473	NoCal	ppm	
20)	dibenzo(ah)anthracene	22.50	711926	NoCal	ppm	
21)	benzo(ghi)perylene	22.77	686345	201.671	ppm	
25) h	c-9	3.30	1290820	199.929	ppm	
26) h	c-10	4.69	1309125	200.088	ppm	
27)	naphthalene #2	7.54	1452045	199.982	ppm	
28)	c-12	7.72	1356212	199.966	ppm	
29)	2-methylnaphthalene #2	8.80	1305625	199.957	ppm	
30)	c-14	9.90	1256697	199.925	ppm	
31)	c-16	11.84	1259111	200.159	ppm	
32)	c-18	13.59	1273132	199.671	ppm	
33)	c-19	14.40	1266593	199.238	ppm	
34)	c-20	15.18	1257558	199.745	ppm	
36)	c-22	16.64	1269666	200.311	ppm	
37)	c-24	17.99	1272929	200.212	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37513.D EPH030810.M Wed Mar 17 13:27:30 2010 RPGEN1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37513.D\FID1A.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37513.D\FID2B.CH
Acq On : 3-8-10 06:42:59 PM Operator: KimD
Sample : ic1911-200 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:36:07 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:35:31 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	R.T.	Response	Conc	Units
38)		c-26	19.23	1263920	199.728	ppm
39)		c-28	20.39	1268125	200.782	ppm
40)	h	c-30	21.05	1300336	204.615	ppm
41)	h	c-36	23.94	1022089	200.762	ppm

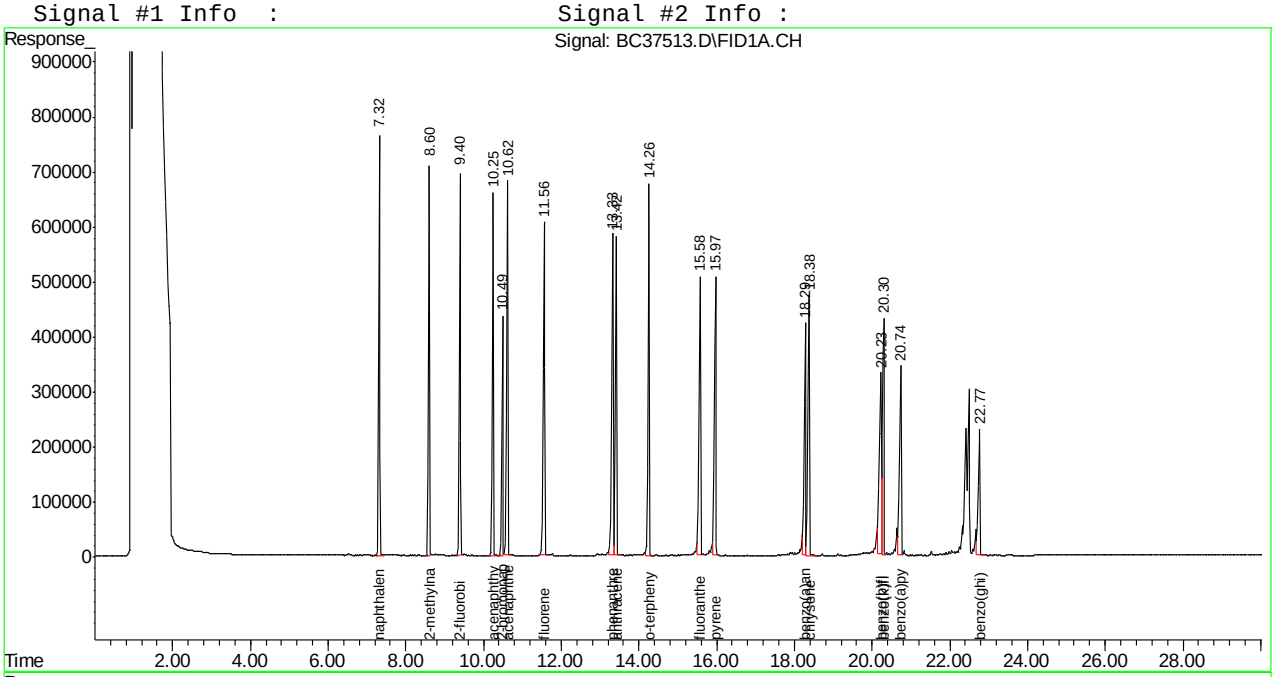
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37513.D EPH030810.M Wed Mar 17 13:27:30 2010 RPGEN1

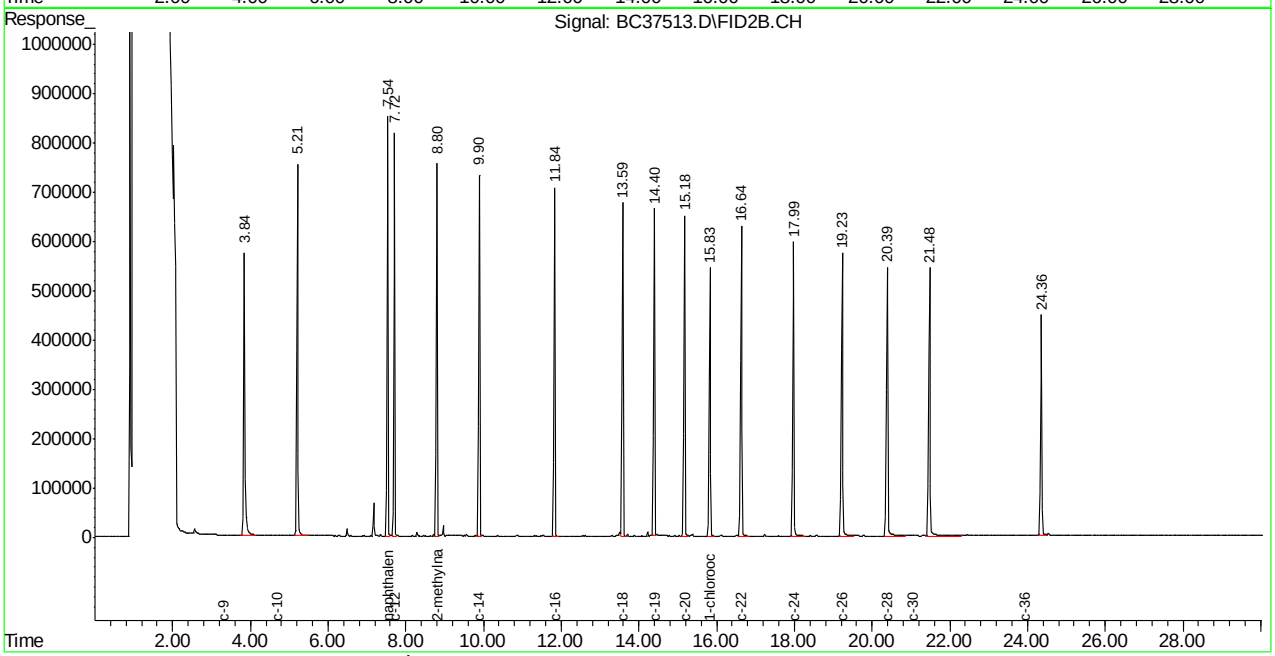
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37513.D\FID1A.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37513.D\FID2B.CH
Acq On : 3-8-10 06:42:59 PM Operator: KimD
Sample : ic1911-200 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 10:34 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:35:31 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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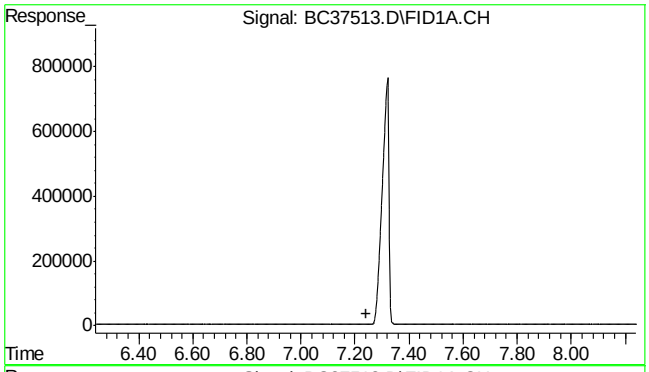
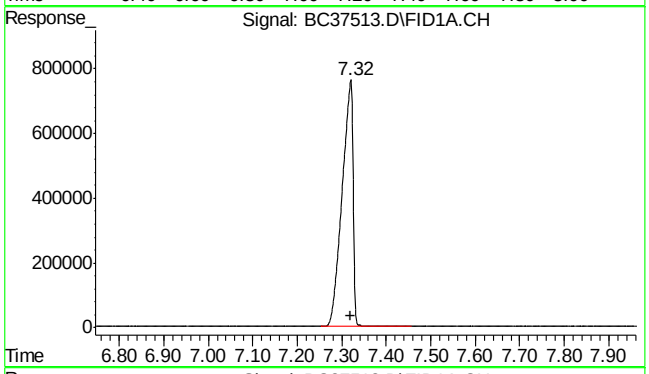


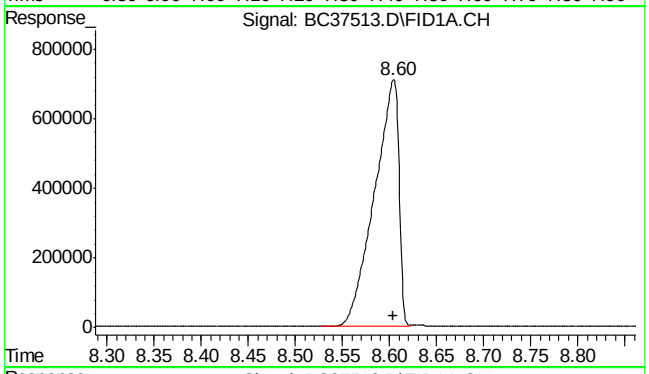
#1 c11-c22 aromatics (Unadj.)

R.T.: 0.000 min
Exp R.T. : 7.240 min
Response: 938
Conc: N.D.



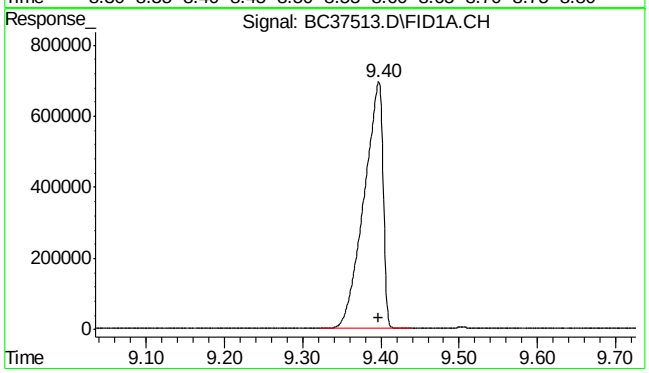
#2 naphthalene

R.T.: 7.321 min
Delta R.T.: 0.000 min
Response: 1310490
Conc: 200.06 ppm



#3 2-methylnaphthalene

R.T.: 8.604 min
Delta R.T.: 0.000 min
Response: 1279666
Conc: 200.01 ppm m



#4 2-fluorobiphenyl

R.T.: 9.397 min
Delta R.T.: 0.000 min
Response: 1171514
Conc: 199.96 ppm m

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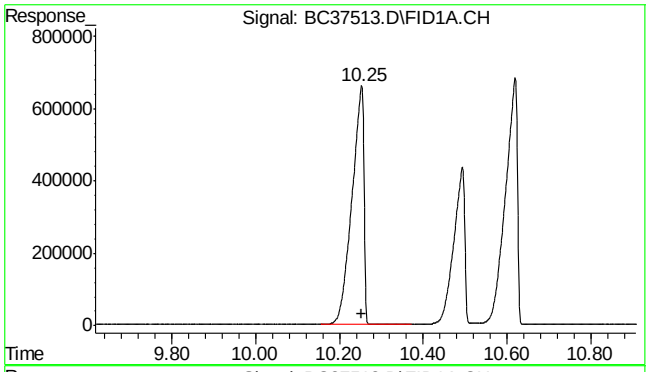
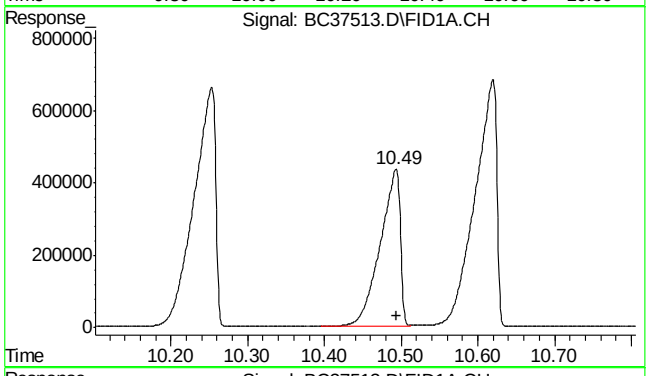


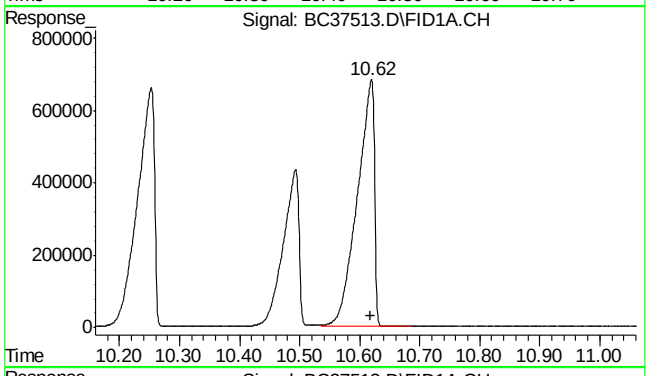
#5 acenaphthylene

R.T.: 10.253 min
Delta R.T.: 0.000 min
Response: 1296610
Conc: 199.99 ppm



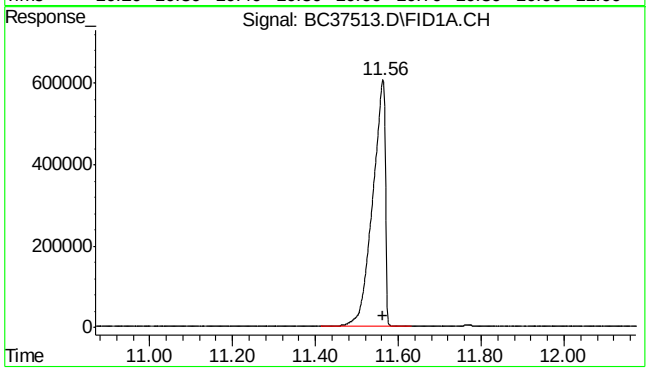
#6 2-bromonaphthalene

R.T.: 10.493 min
Delta R.T.: 0.000 min
Response: 789245
Conc: 199.69 ppm



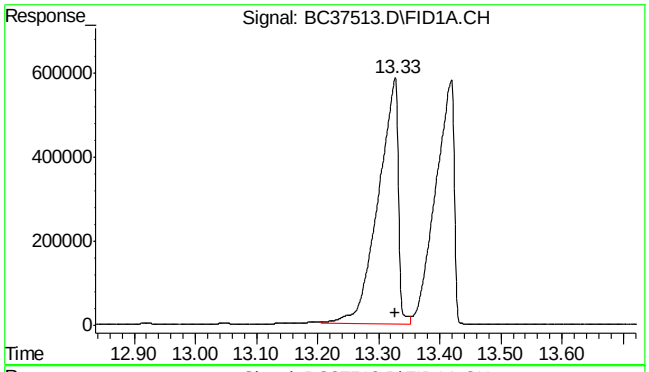
#7 acenaphthene

R.T.: 10.619 min
Delta R.T.: 0.000 min
Response: 1342323
Conc: 199.31 ppm



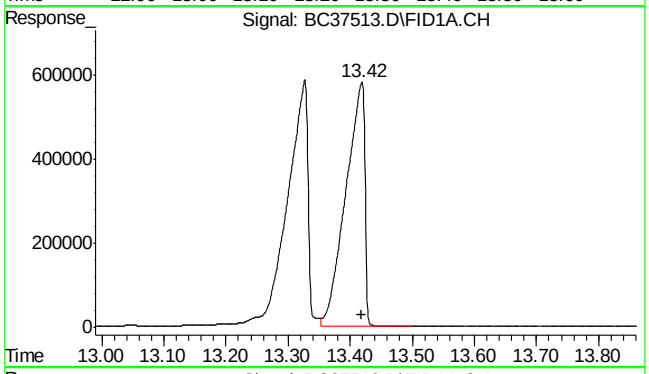
#8 fluorene

R.T.: 11.563 min
Delta R.T.: 0.000 min
Response: 1281640
Conc: 199.70 ppm



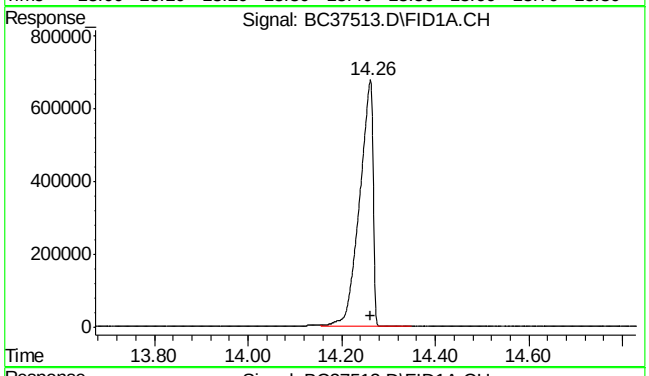
#9 phenanthrene

R.T.: 13.327 min
Delta R.T.: 0.000 min
Response: 1328053
Conc: 200.21 ppm



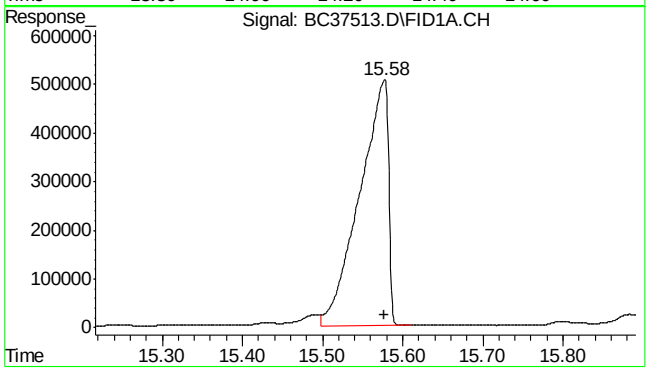
#10 anthracene

R.T.: 13.419 min
Delta R.T.: 0.000 min
Response: 1225798
Conc: 198.69 ppm



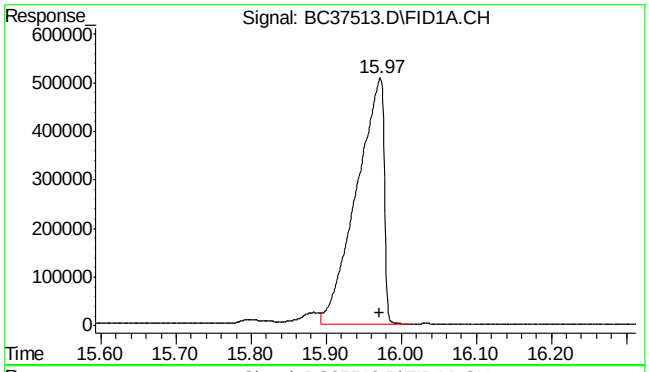
#11 o-terphenyl

R.T.: 14.261 min
Delta R.T.: 0.000 min
Response: 1346690
Conc: 199.74 ppm



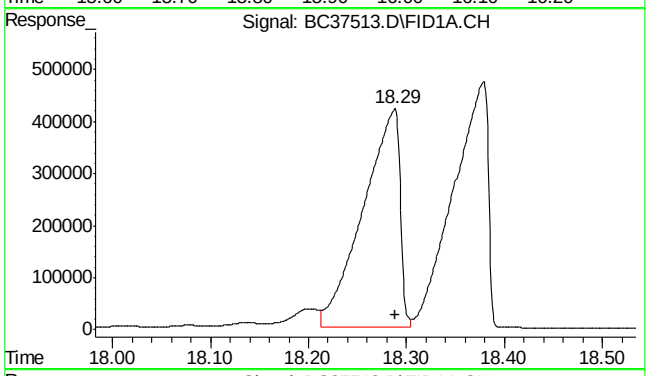
#12 fluoranthene

R.T.: 15.578 min
Delta R.T.: 0.000 min
Response: 1253723
Conc: 200.09 ppm



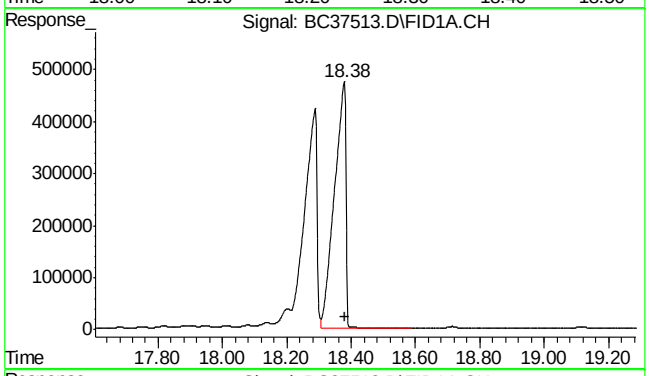
#13 pyrene

R.T.: 15.972 min
Delta R.T.: 0.000 min
Response: 1282937
Conc: 200.00 ppm



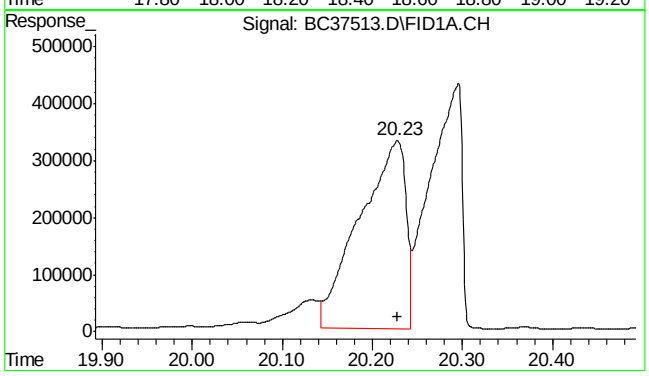
#14 benzo(a)anthracene

R.T.: 18.288 min
Delta R.T.: 0.000 min
Response: 1093094
Conc: 201.01 ppm m



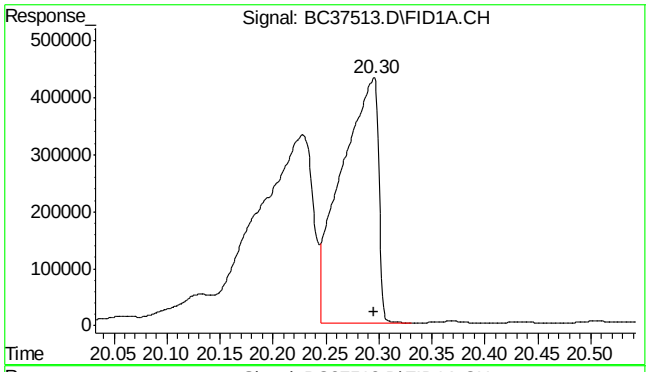
#15 chrysene

R.T.: 18.379 min
Delta R.T.: 0.000 min
Response: 1164673
Conc: 200.10 ppm



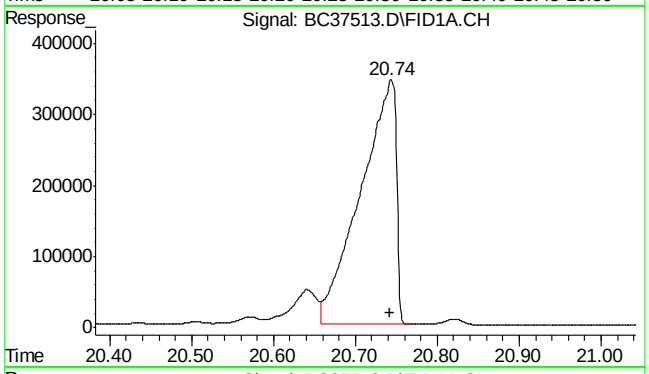
#16 benzo(b)fluoranthene

R.T.: 20.228 min
Delta R.T.: 0.000 min
Response: 1176630
Conc: 199.63 ppm



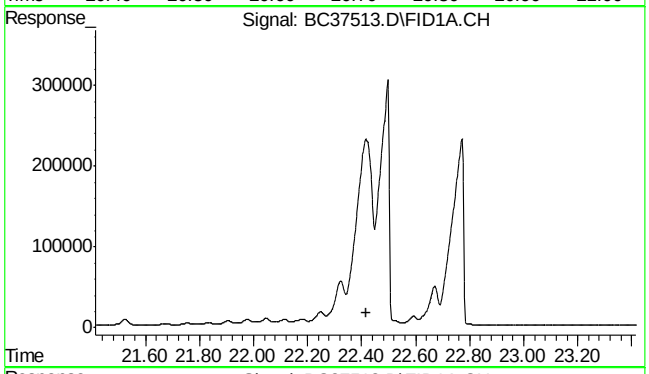
#17 benzo(k)fluoranthene

R.T.: 20.296 min
Delta R.T.: 0.000 min
Response: 1029203
Conc: 202.20 ppm



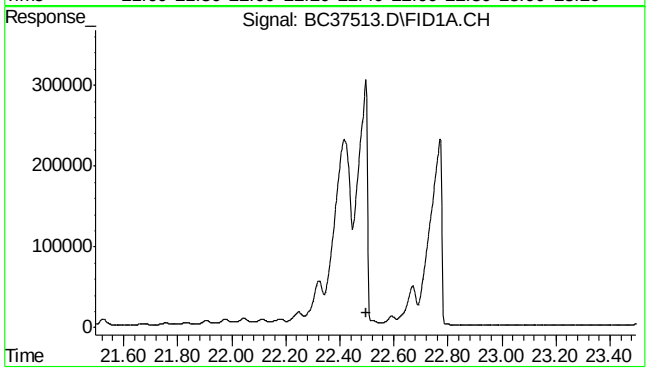
#18 benzo(a)pyrene

R.T.: 20.743 min
Delta R.T.: 0.000 min
Response: 1042578
Conc: 196.74 ppm



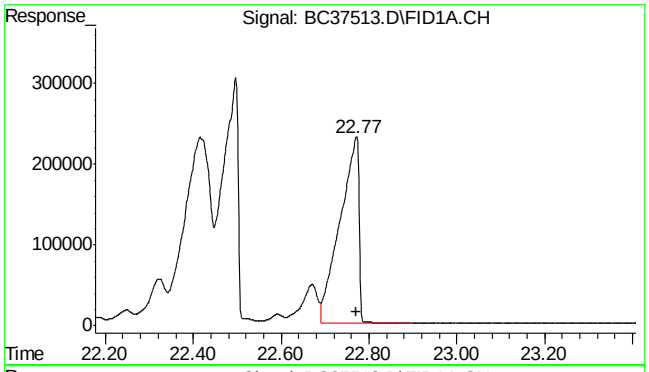
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.415 min
Delta R.T.: 0.000 min
Response: 909473
Conc: N.D.



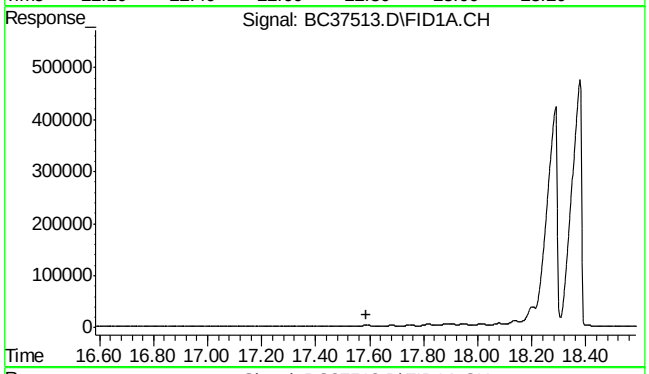
#20 dibenzo(ah)anthracene

R.T.: 22.496 min
Delta R.T.: 0.000 min
Response: 711926
Conc: N.D.



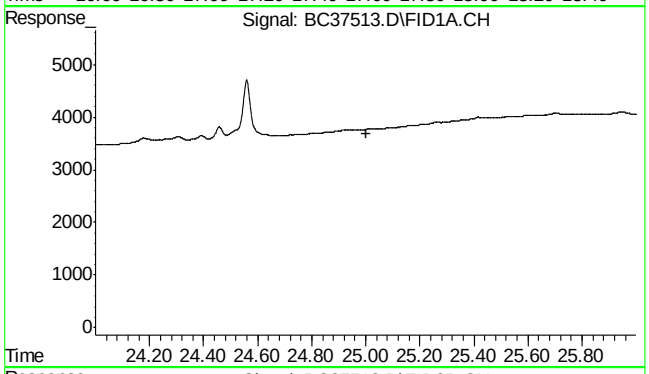
#21 benzo(ghi)perylene

R.T.: 22.772 min
Delta R.T.: 0.000 min
Response: 686345
Conc: 201.67 ppm



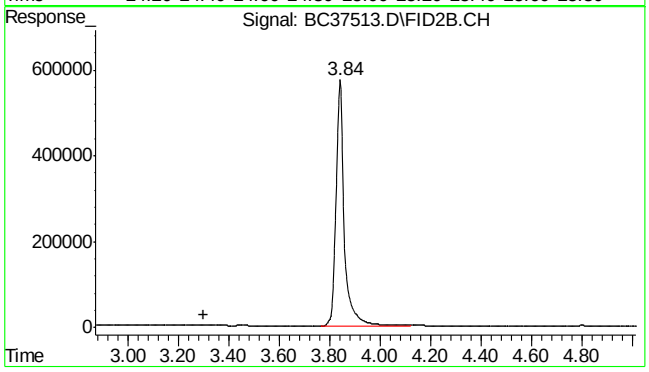
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



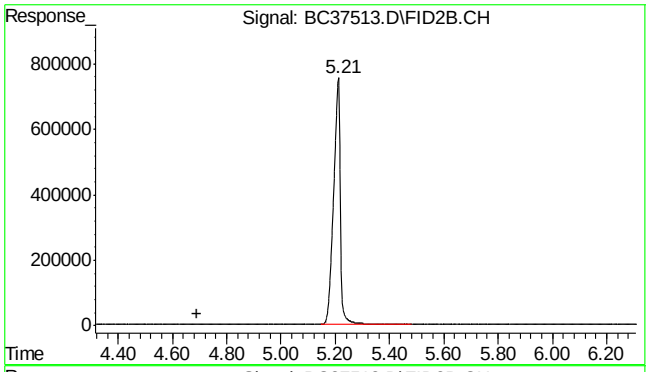
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



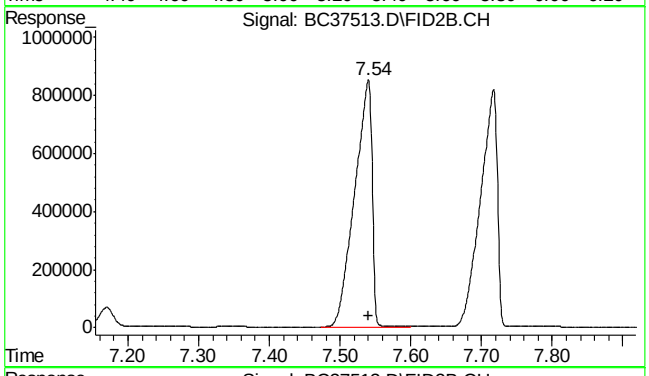
#25 c-9

R.T.: 3.300 min
Delta R.T.: 0.000 min
Response: 1290820
Conc: 199.93 ppm m



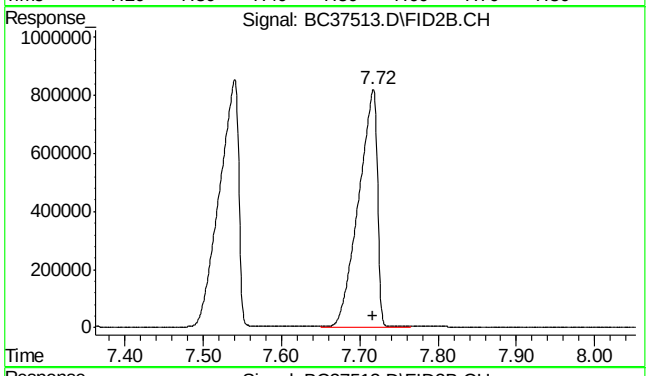
#26 c-10

R.T.: 4.690 min
Delta R.T.: 0.000 min
Response: 1309125
Conc: 200.09 ppm m



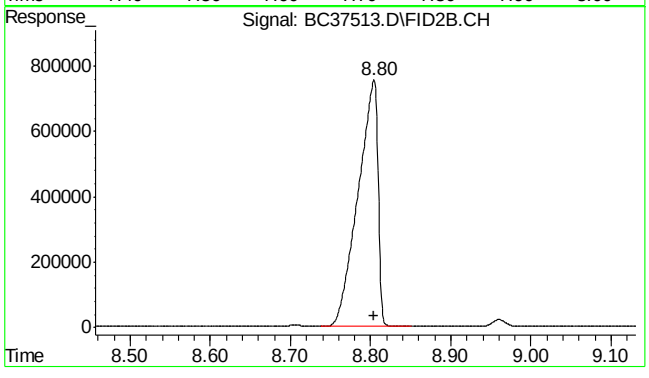
#27 naphthalene #2

R.T.: 7.540 min
Delta R.T.: 0.000 min
Response: 1452045
Conc: 199.98 ppm



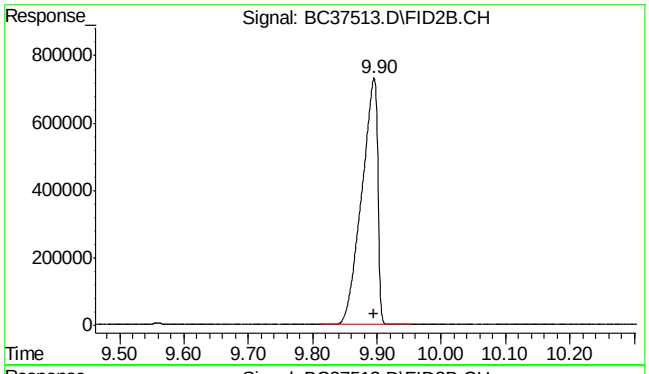
#28 c-12

R.T.: 7.717 min
Delta R.T.: 0.000 min
Response: 1356212
Conc: 199.97 ppm



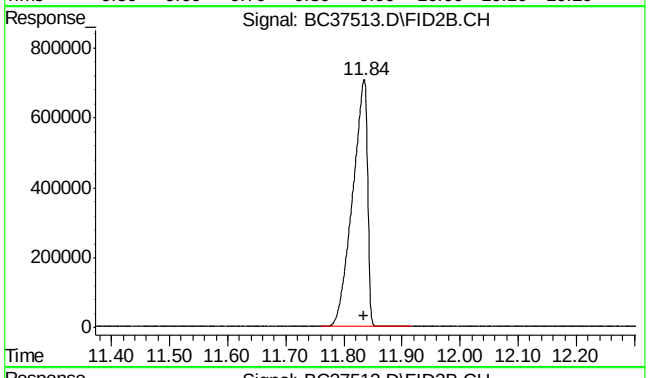
#29 2-methylnaphthalene #2

R.T.: 8.804 min
Delta R.T.: 0.000 min
Response: 1305625
Conc: 199.96 ppm



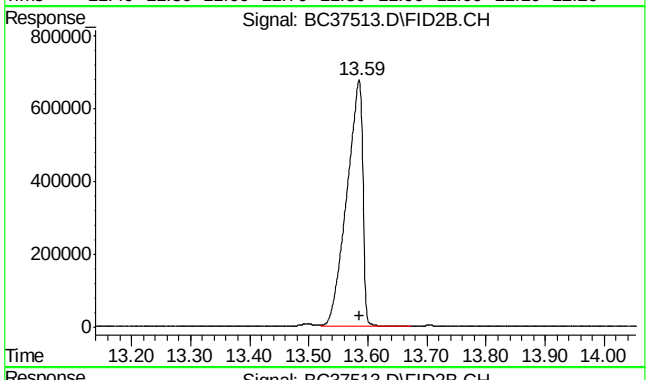
#30 c-14

R.T.: 9.895 min
Delta R.T.: 0.000 min
Response: 1256697
Conc: 199.92 ppm



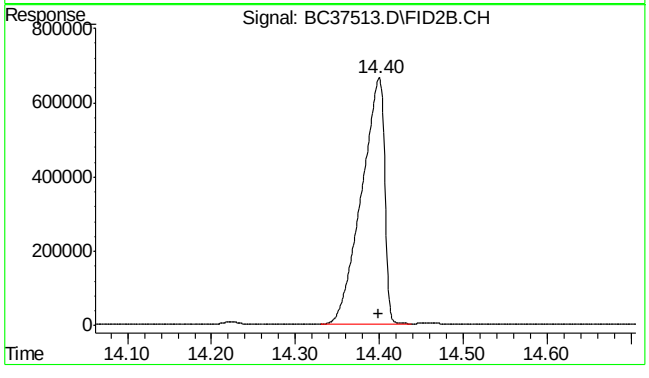
#31 c-16

R.T.: 11.835 min
Delta R.T.: 0.000 min
Response: 1259111
Conc: 200.16 ppm



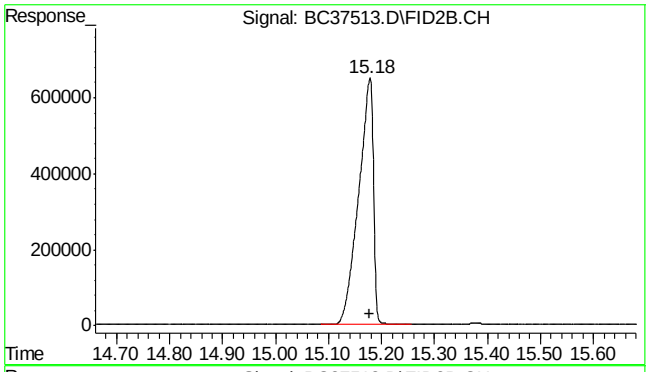
#32 c-18

R.T.: 13.585 min
Delta R.T.: 0.000 min
Response: 1273132
Conc: 199.67 ppm



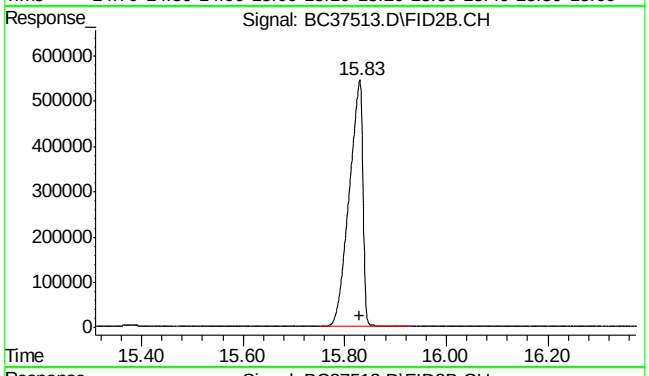
#33 c-19

R.T.: 14.399 min
Delta R.T.: 0.000 min
Response: 1266593
Conc: 199.24 ppm



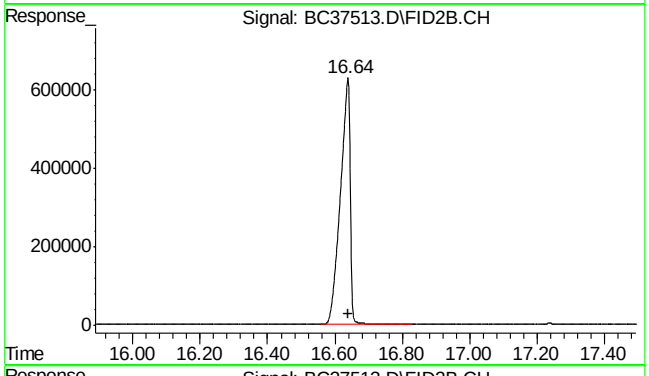
#34 c-20

R.T.: 15.178 min
Delta R.T.: 0.000 min
Response: 1257558
Conc: 199.74 ppm



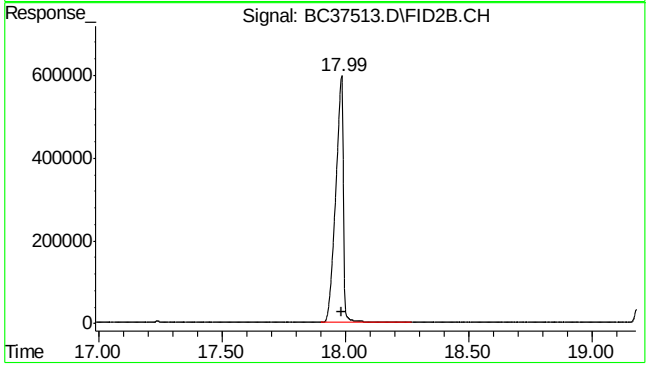
#35 1-chlorooctadecane

R.T.: 15.829 min
Delta R.T.: 0.000 min
Response: 1011941
Conc: 199.93 ppm



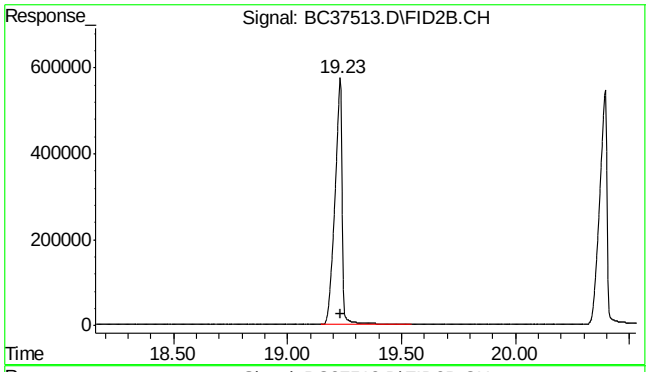
#36 c-22

R.T.: 16.638 min
Delta R.T.: 0.000 min
Response: 1269666
Conc: 200.31 ppm



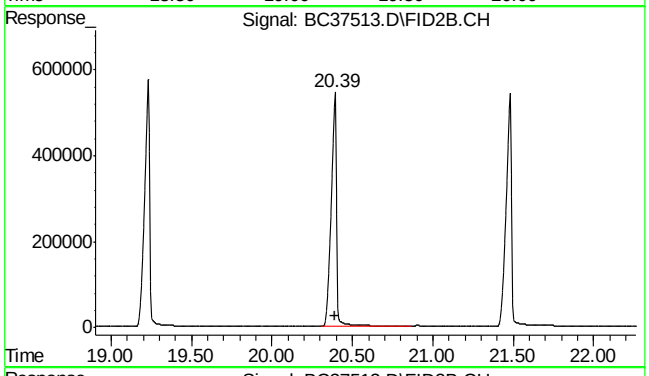
#37 c-24

R.T.: 17.985 min
Delta R.T.: 0.000 min
Response: 1272929
Conc: 200.21 ppm



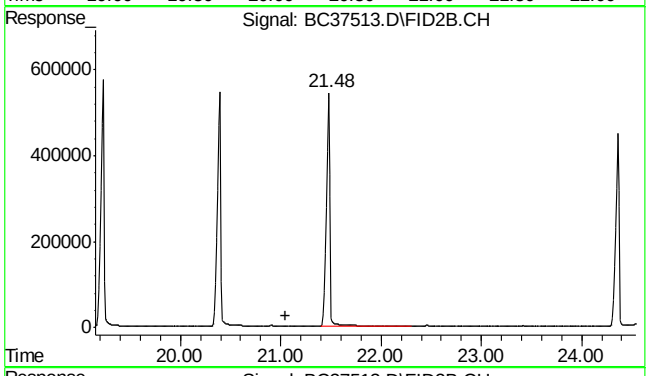
#38 c-26

R.T.: 19.231 min
Delta R.T.: 0.000 min
Response: 1263920
Conc: 199.73 ppm



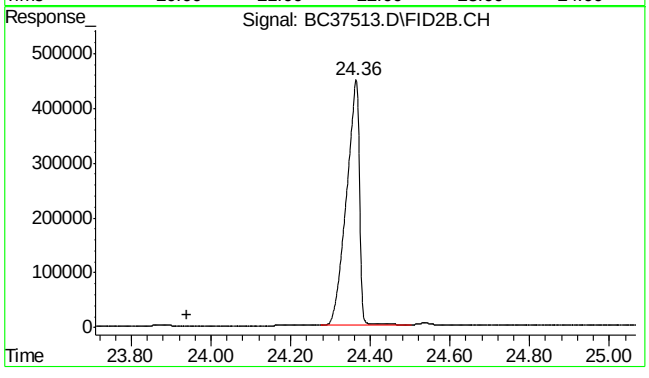
#39 c-28

R.T.: 20.393 min
Delta R.T.: 0.000 min
Response: 1268125
Conc: 200.78 ppm



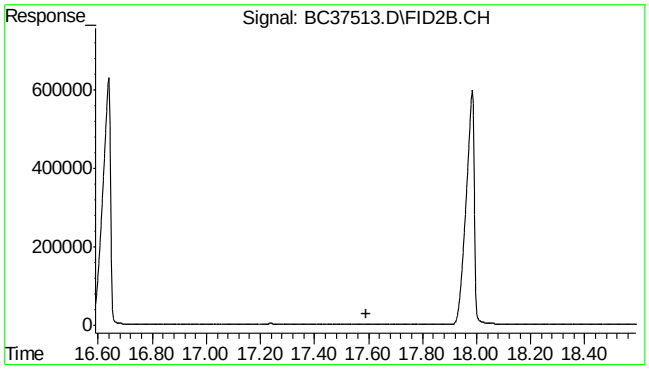
#40 c-30

R.T.: 21.050 min
Delta R.T.: 0.000 min
Response: 1300336
Conc: 204.61 ppm m



#41 c-36

R.T.: 23.940 min
Delta R.T.: 0.000 min
Response: 1022089
Conc: 200.76 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.1

10

ACCUTEST Laboratories F71731

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/15/10 13:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37514.D\FID1A.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BC37514.D\FID2B.CH
Acq On : 3-8-10 07:22:38 PM Operator: KimD
Sample : ic1911-100 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:41:35 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:40:33 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s 2-fluorobiphenyl	9.38	572305	97.703	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 488.52%#				
6) s 2-bromonaphthalene	10.48	384258	97.374	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 486.87%#				
11) s o-terphenyl	14.25	666680	99.010	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 495.05%#				
22) s bht	0.00	0	N.D.	ppm	d
23) s BHT	0.00	0	N.D.	ppm	d
35) s 1-chlorooctadecane	15.82	575948	113.830	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 569.15%#				
42) s BHT	0.00	0	N.D.	ppm	
Target Compounds					
1) h c11-c22 aromatics (Unadj.)	0.00	0	N.D.	ppm	
2) naphthalene	7.31	641063	97.836	ppm	
3) 2-methylnaphthalene	8.59	623720	97.482	ppm	
5) acenaphthylene	10.24	636879	98.238	ppm	
7) acenaphthene	10.60f	660553	98.419	ppm	
8) fluorene	11.55	622259	97.104	ppm	
9) phenanthrene	13.31	640708	96.488	ppm	m
10) anthracene	13.40f	616938	100.659	ppm	
12) fluoranthene	15.56	633109	100.997	ppm	
13) pyrene	15.95f	654359	102.010	ppm	
14) benzo(a)anthracene	18.27	533455	97.605	ppm	
15) chrysene	18.35f	605002	103.892	ppm	
16) benzo(b)fluoranthene	20.20	572792	97.361	ppm	m
17) benzo(k)fluoranthene	20.26f	567042	110.191	ppm	
18) benzo(a)pyrene	20.72f	562423	107.891	ppm	
19) indeno(1,2,3-cd)pyrene	22.40	431479	NoCal	ppm	
20) dibenzo(ah)anthracene	22.47	413270	NoCal	ppm	
21) benzo(ghi)perylene	22.74f	403372	117.542	ppm	
25) h c-9	3.30	729764	114.056	ppm	
26) h c-10	4.69	738764	113.069	ppm	
27) naphthalene #2	7.53f	820614	113.029	ppm	
28) c-12	7.70	764442	112.732	ppm	m
29) 2-methylnaphthalene #2	8.79f	739838	113.331	ppm	
30) c-14	9.88	707142	112.540	ppm	
31) c-16	11.82	708369	112.519	ppm	
32) c-18	13.57	717572	112.725	ppm	
33) c-19	14.39	714853	112.878	ppm	m
34) c-20	15.16	707576	112.532	ppm	
36) c-22	16.62f	717025	112.947	ppm	
37) c-24	17.97f	721599	113.376	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37514.D EPH030810.M Wed Mar 17 13:27:39 2010 RPGEN1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37514.D\FID1A.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BC37514.D\FID2B.CH
Acq On : 3-8-10 07:22:38 PM Operator: KimD
Sample : ic1911-100 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:41:35 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:40:33 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	R.T.	Response	Conc Units
38)		c-26	19.22	716158	113.323 ppm
39)		c-28	20.38	715561	112.853 ppm
40)	h	c-30	21.05	730604	114.692 ppm
41)	h	c-36	23.94	523218	103.080 ppm

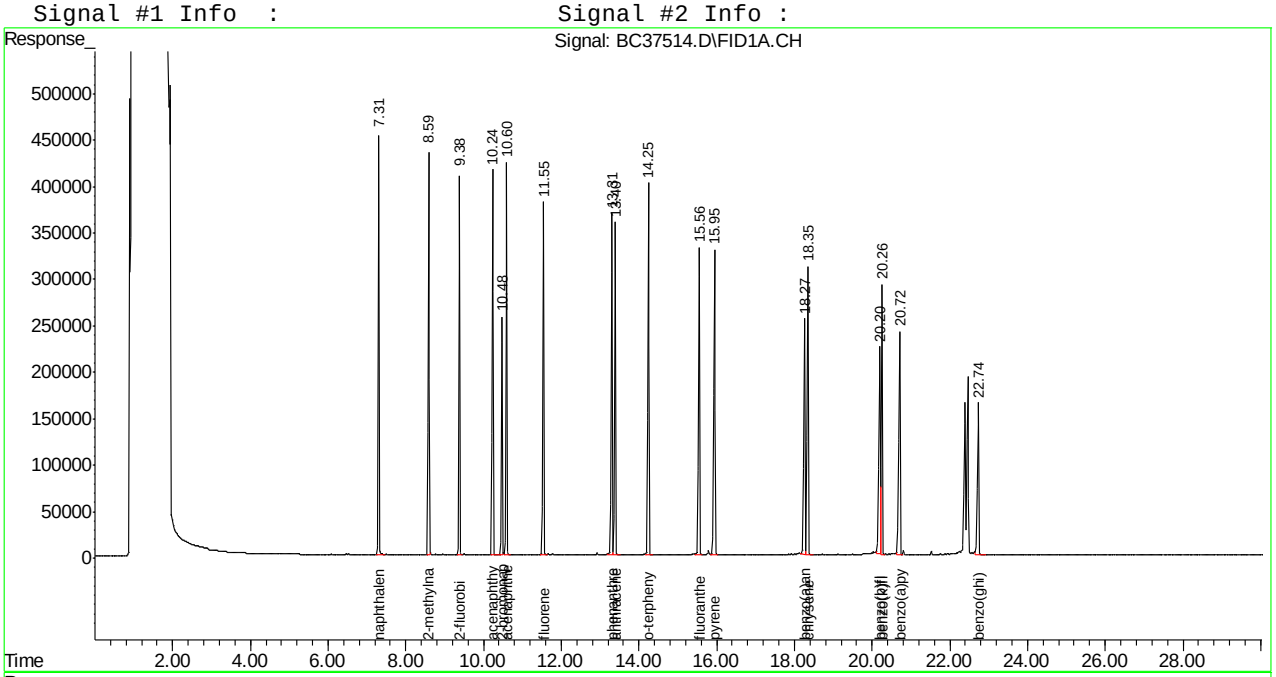
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37514.D EPH030810.M Wed Mar 17 13:27:40 2010 RPGEN1

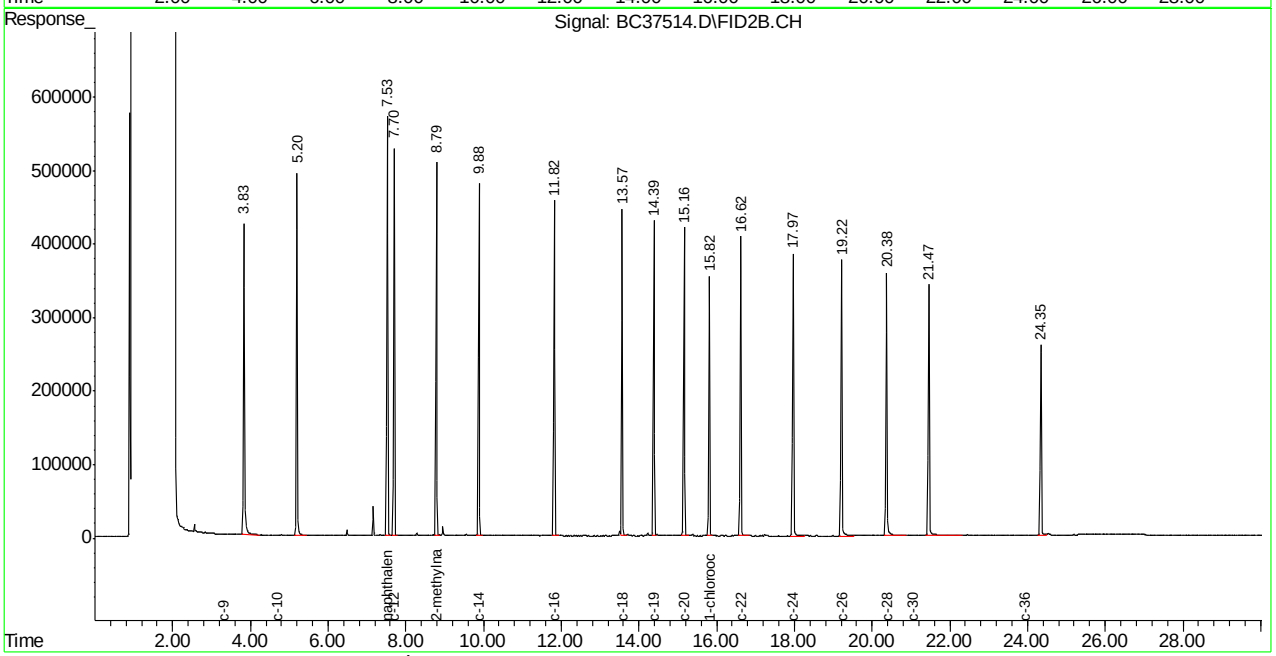
Quantitation Report (QT Reviewed)

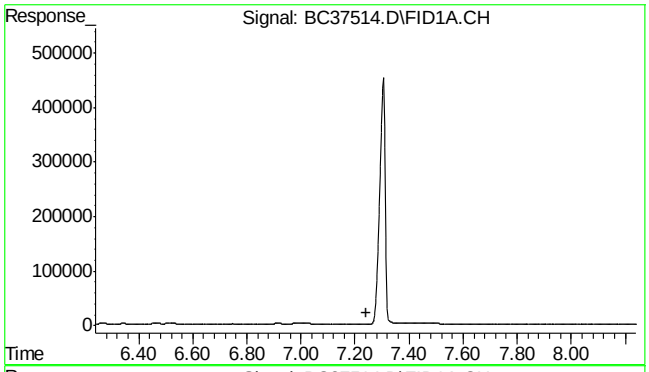
Signal #1 : C:\MSDCHEM\1\DATA\BC37514.D\FID1A.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BC37514.D\FID2B.CH
Acq On : 3-8-10 07:22:38 PM Operator: KimD
Sample : ic1911-100 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 10:36 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:40:33 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

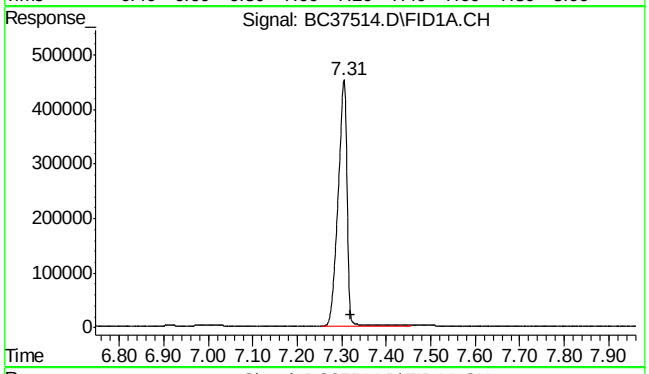






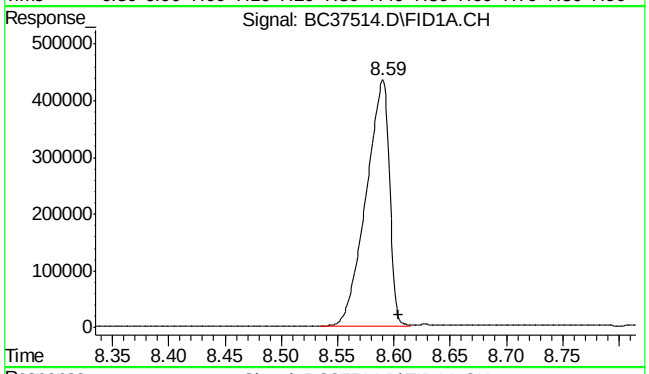
#1 c11-c22 aromatics (Unadj.)

R.T.: 0.000 min
Exp R.T. : 7.240 min
Response: 0
Conc: N.D.



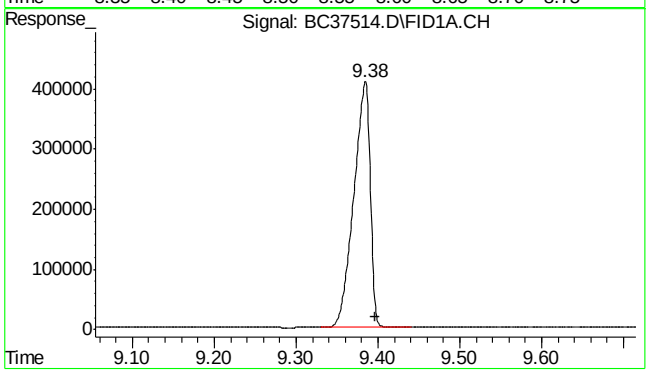
#2 naphthalene

R.T.: 7.305 min
Delta R.T.: -0.016 min
Response: 641063
Conc: 97.84 ppm



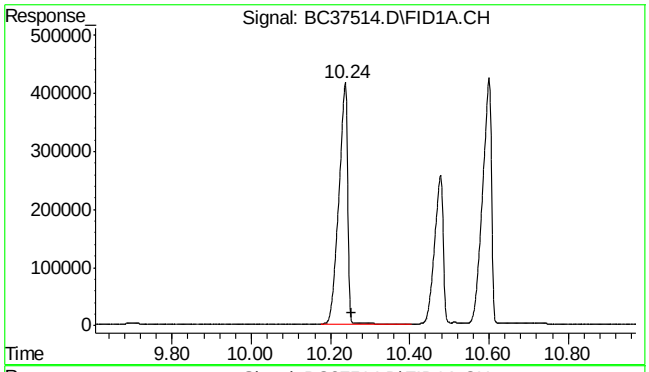
#3 2-methylnaphthalene

R.T.: 8.590 min
Delta R.T.: -0.014 min
Response: 623720
Conc: 97.48 ppm



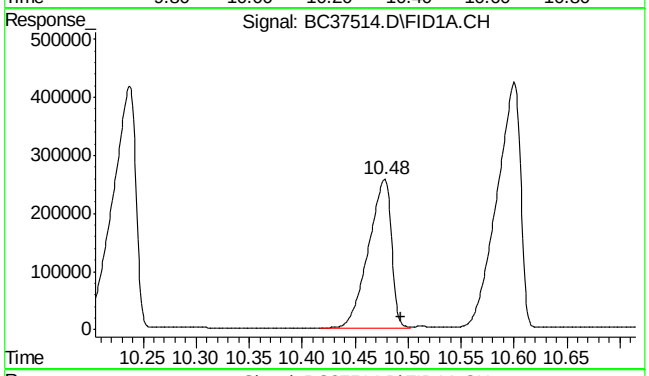
#4 2-fluorobiphenyl

R.T.: 9.384 min
Delta R.T.: -0.013 min
Response: 572305
Conc: 97.70 ppm



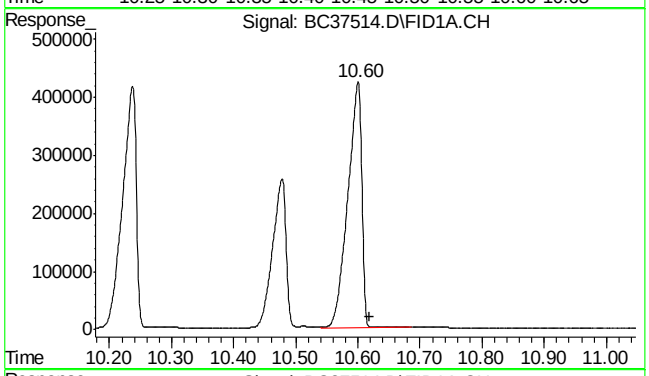
#5 acenaphthylene

R.T.: 10.237 min
Delta R.T.: -0.016 min
Response: 636879
Conc: 98.24 ppm



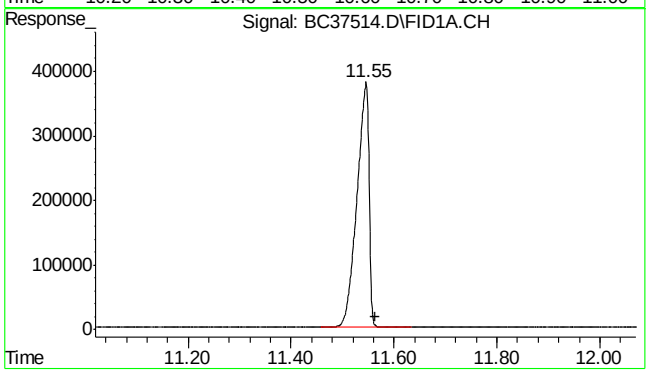
#6 2-bromonaphthalene

R.T.: 10.478 min
Delta R.T.: -0.016 min
Response: 384258
Conc: 97.37 ppm



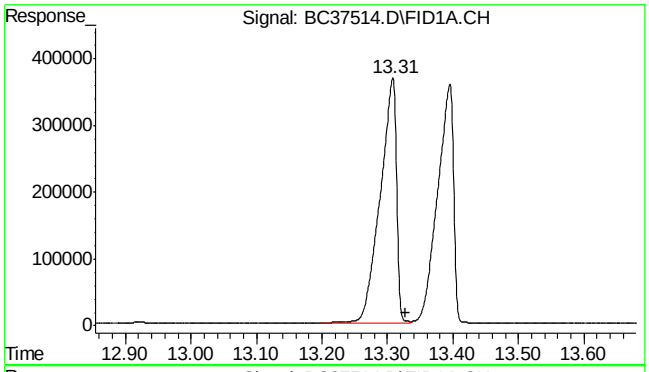
#7 acenaphthene

R.T.: 10.600 min
Delta R.T.: -0.019 min
Response: 660553
Conc: 98.42 ppm



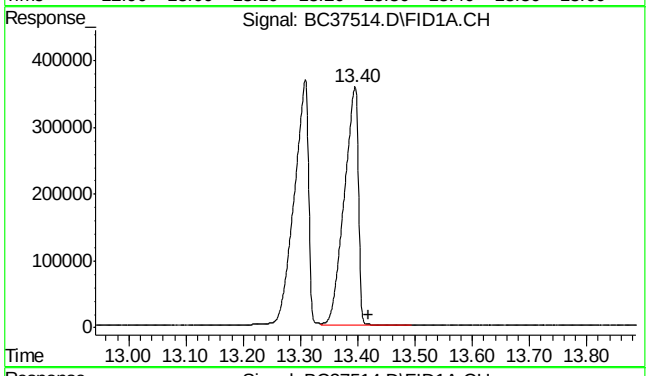
#8 fluorene

R.T.: 11.546 min
Delta R.T.: -0.017 min
Response: 622259
Conc: 97.10 ppm



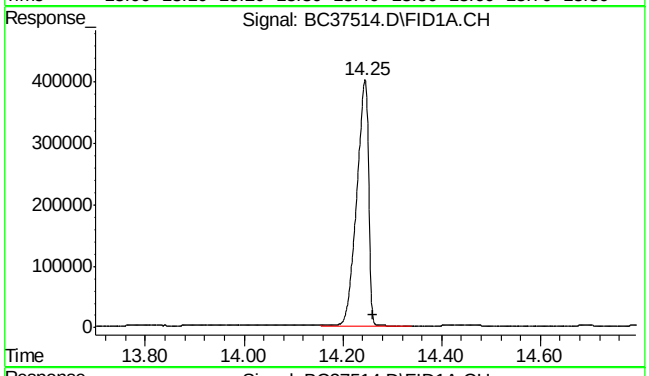
#9 phenanthrene

R.T.: 13.308 min
Delta R.T.: -0.018 min
Response: 640708
Conc: 96.49 ppm m



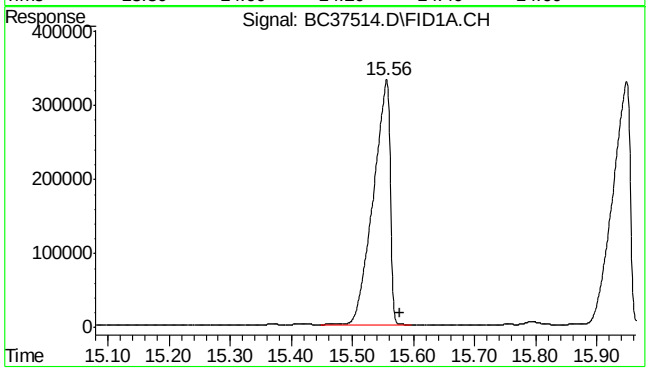
#10 anthracene

R.T.: 13.395 min
Delta R.T.: -0.024 min
Response: 616938
Conc: 100.66 ppm



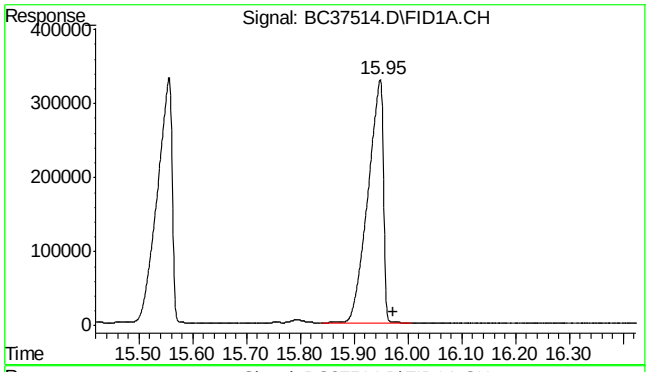
#11 o-terphenyl

R.T.: 14.245 min
Delta R.T.: -0.016 min
Response: 666680
Conc: 99.01 ppm



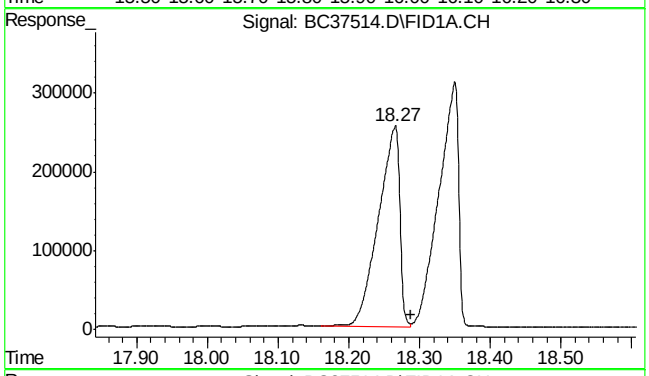
#12 fluoranthene

R.T.: 15.556 min
Delta R.T.: -0.022 min
Response: 633109
Conc: 101.00 ppm



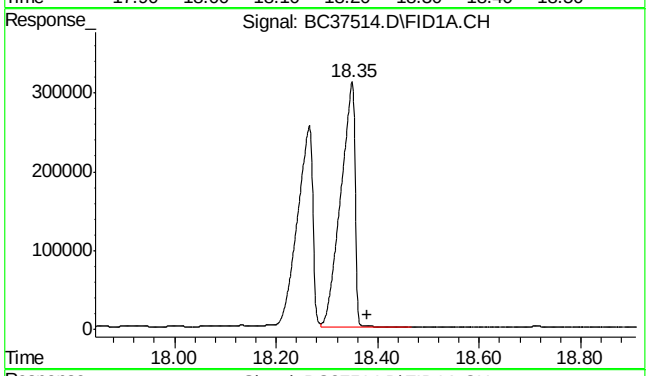
#13 pyrene

R.T.: 15.948 min
Delta R.T.: -0.023 min
Response: 654359
Conc: 102.01 ppm



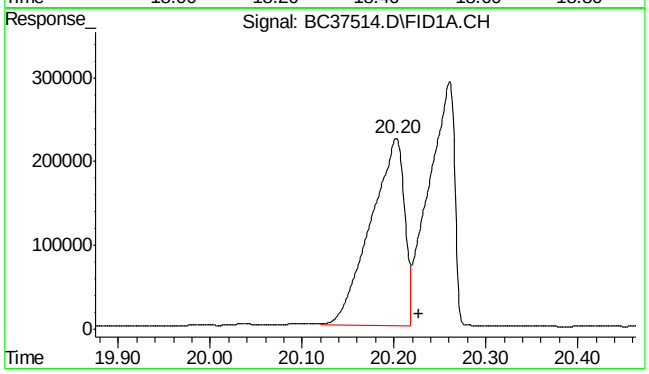
#14 benzo(a)anthracene

R.T.: 18.266 min
Delta R.T.: -0.023 min
Response: 533455
Conc: 97.60 ppm



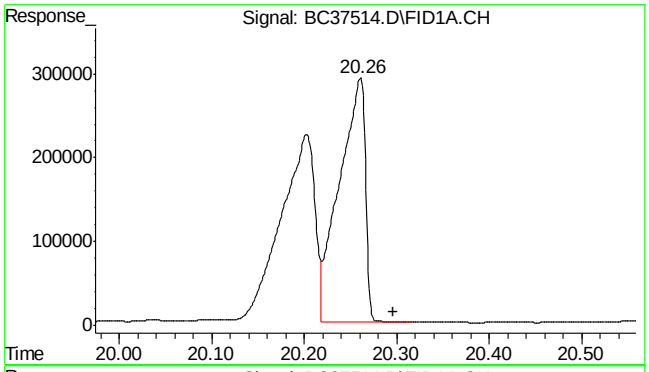
#15 chrysene

R.T.: 18.349 min
Delta R.T.: -0.030 min
Response: 605002
Conc: 103.89 ppm



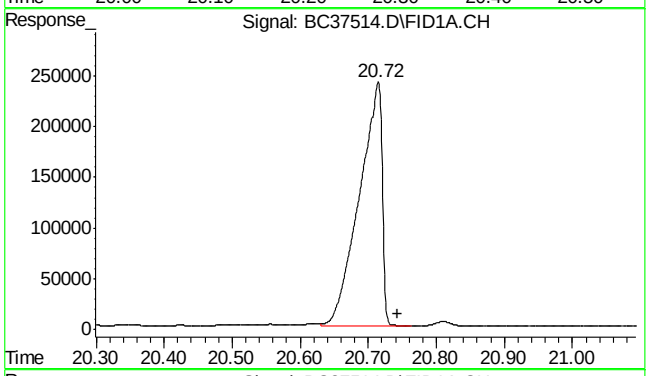
#16 benzo(b)fluoranthene

R.T.: 20.202 min
Delta R.T.: -0.026 min
Response: 572792
Conc: 97.36 ppm m



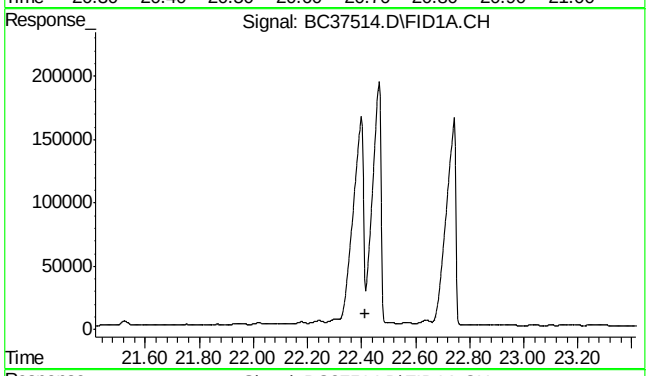
#17 benzo(k)fluoranthene

R.T.: 20.261 min
Delta R.T.: -0.035 min
Response: 567042
Conc: 110.19 ppm



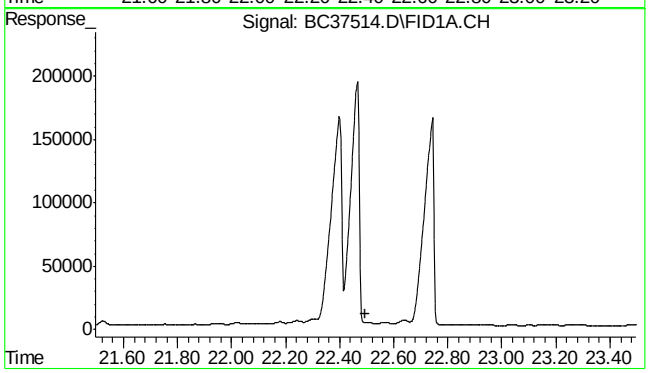
#18 benzo(a)pyrene

R.T.: 20.715 min
Delta R.T.: -0.028 min
Response: 562423
Conc: 107.89 ppm



#19 indeno(1,2,3-cd)pyrene

R.T.: 22.398 min
Delta R.T.: -0.017 min
Response: 431479
Conc: N.D.



#20 dibenzo(ah)anthracene

R.T.: 22.467 min
Delta R.T.: -0.029 min
Response: 413270
Conc: N.D.

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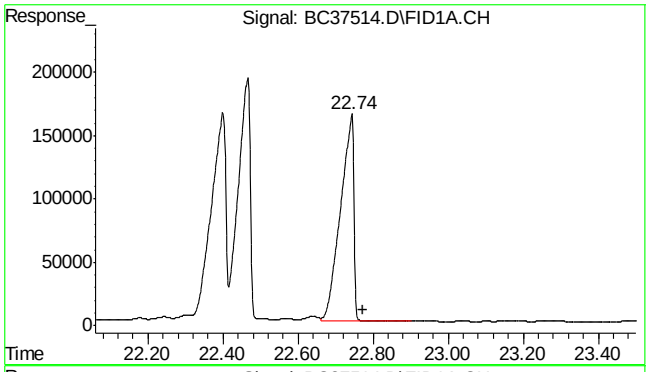
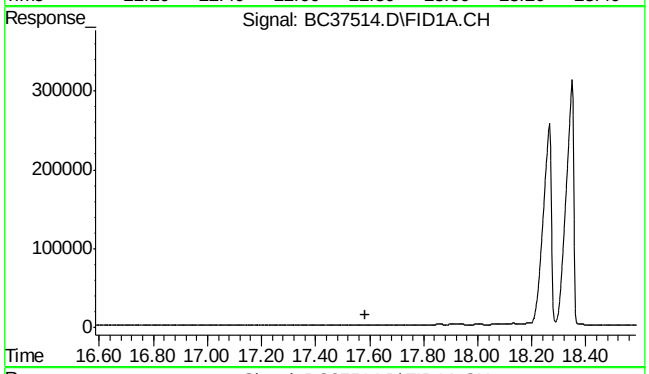


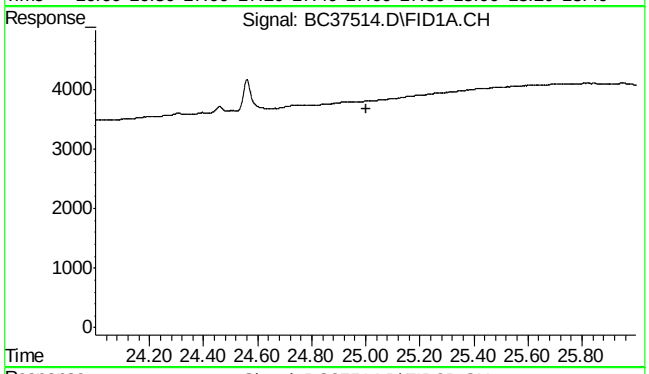
#21 benzo(ghi)perylene

R.T.: 22.743 min
Delta R.T.: -0.028 min
Response: 403372
Conc: 117.54 ppm



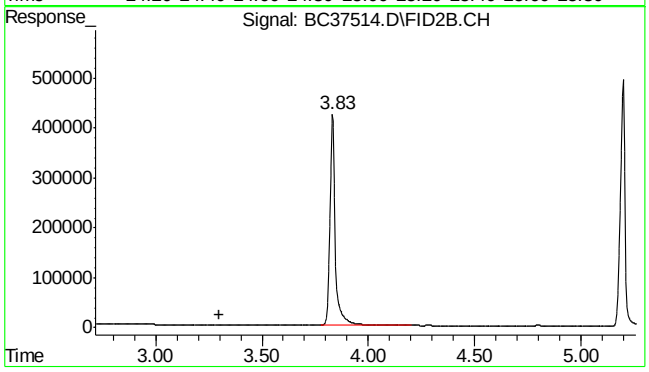
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



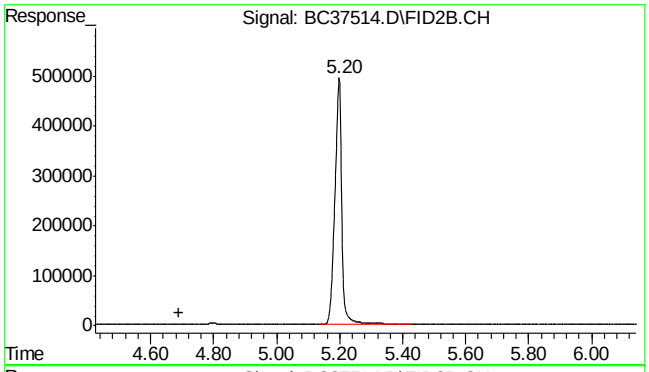
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



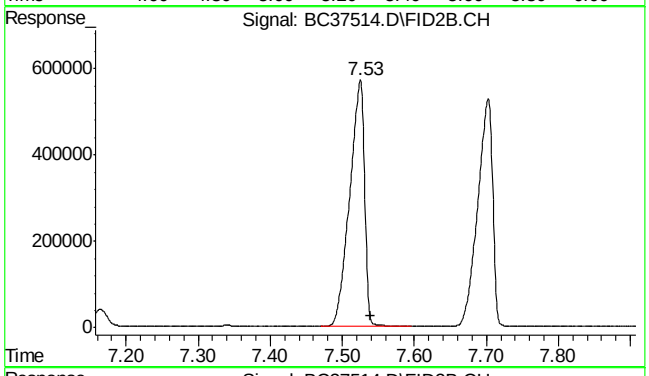
#25 c-9

R.T.: 3.300 min
Delta R.T.: 0.000 min
Response: 729764
Conc: 114.06 ppm m



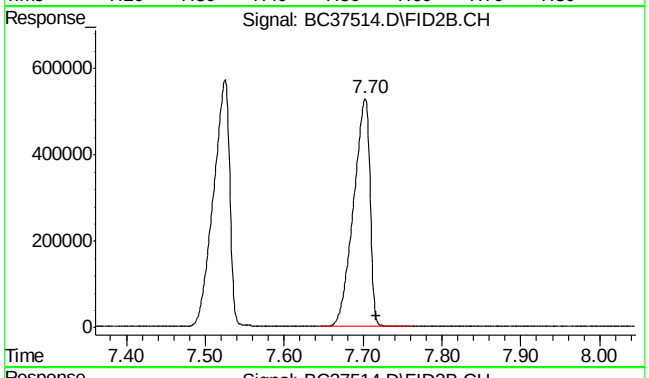
#26 c-10

R.T.: 4.690 min
Delta R.T.: 0.000 min
Response: 738764
Conc: 113.07 ppm m



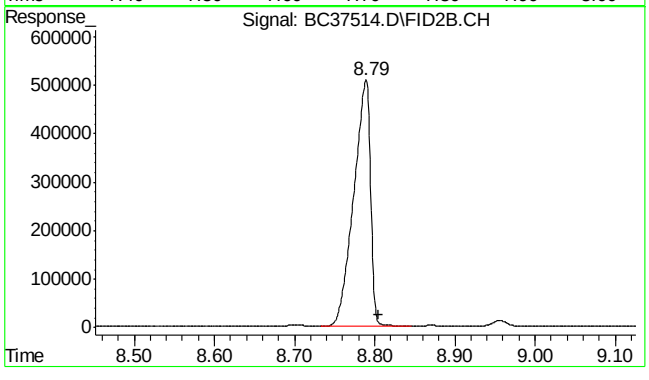
#27 naphthalene #2

R.T.: 7.525 min
Delta R.T.: -0.015 min
Response: 820614
Conc: 113.03 ppm



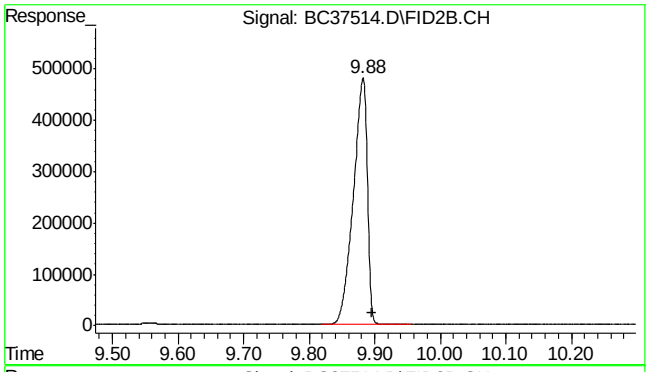
#28 c-12

R.T.: 7.703 min
Delta R.T.: -0.014 min
Response: 764442
Conc: 112.73 ppm m



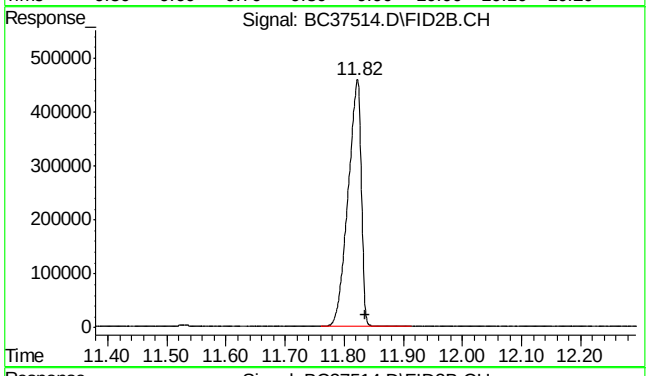
#29 2-methylnaphthalene #2

R.T.: 8.789 min
Delta R.T.: -0.015 min
Response: 739838
Conc: 113.33 ppm



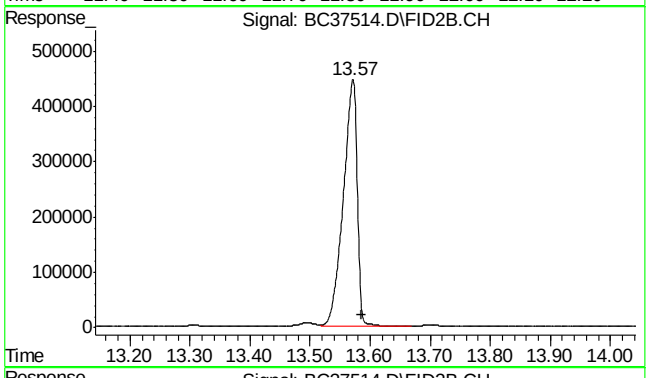
#30 c-14

R.T.: 9.883 min
Delta R.T.: -0.013 min
Response: 707142
Conc: 112.54 ppm



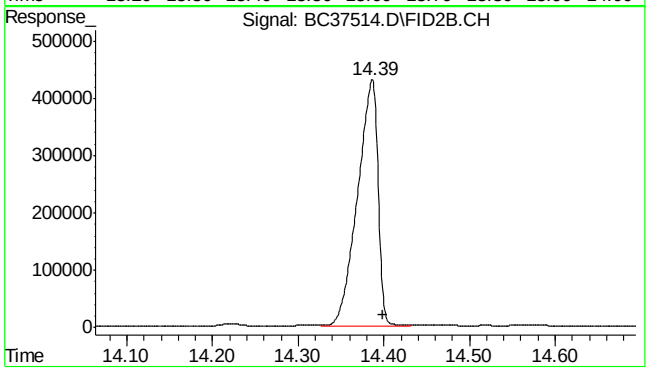
#31 c-16

R.T.: 11.823 min
Delta R.T.: -0.013 min
Response: 708369
Conc: 112.52 ppm



#32 c-18

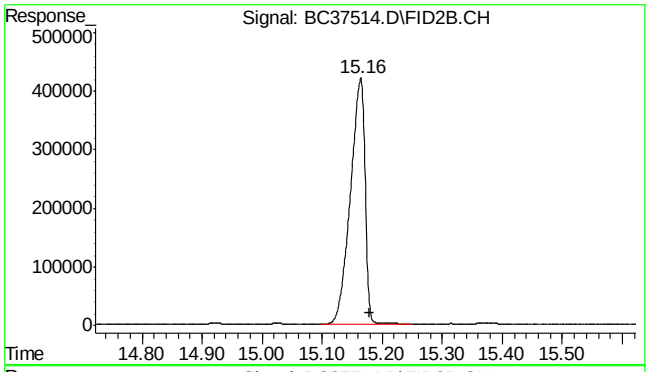
R.T.: 13.571 min
Delta R.T.: -0.014 min
Response: 717572
Conc: 112.73 ppm



#33 c-19

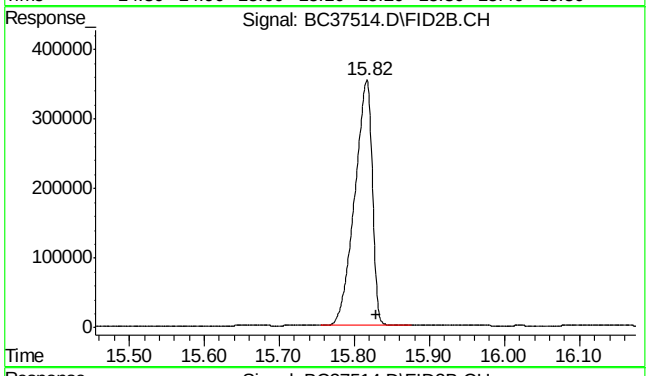
R.T.: 14.387 min
Delta R.T.: -0.013 min
Response: 714853
Conc: 112.88 ppm m

10.5.2 10



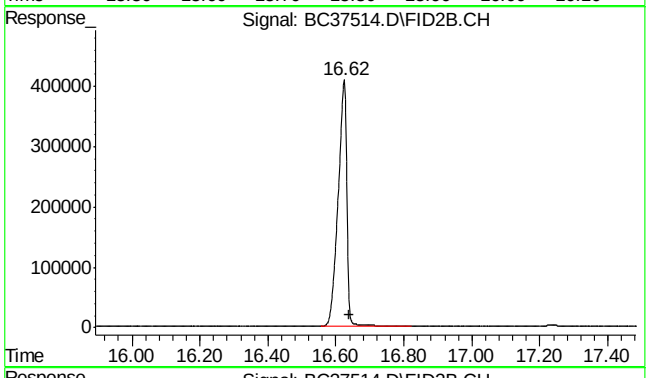
#34 c-20

R.T.: 15.164 min
Delta R.T.: -0.014 min
Response: 707576
Conc: 112.53 ppm



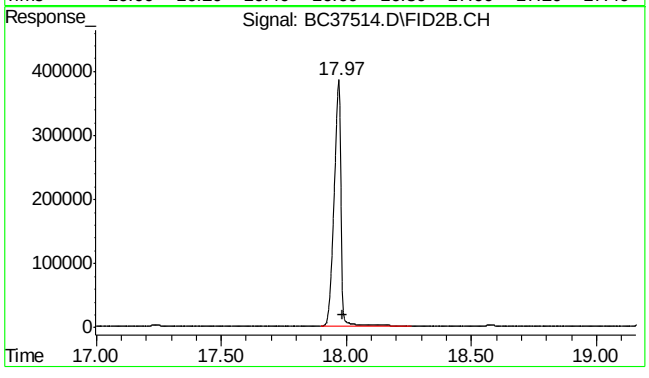
#35 1-chlorooctadecane

R.T.: 15.817 min
Delta R.T.: -0.013 min
Response: 575948
Conc: 113.83 ppm



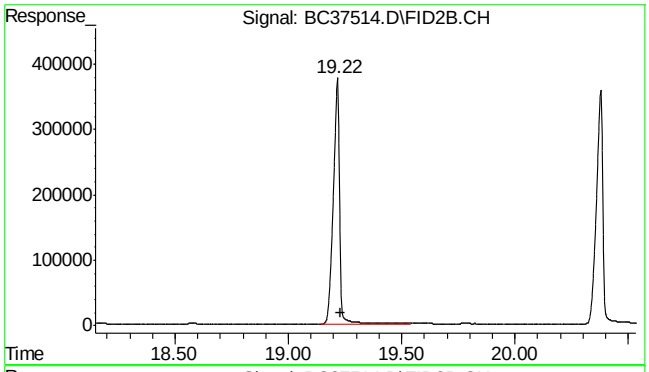
#36 c-22

R.T.: 16.623 min
Delta R.T.: -0.015 min
Response: 717025
Conc: 112.95 ppm



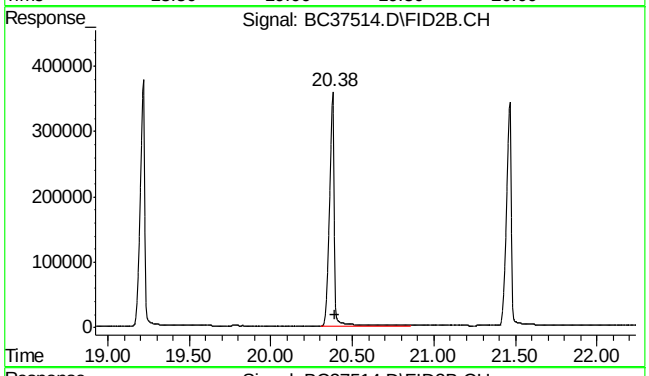
#37 c-24

R.T.: 17.970 min
Delta R.T.: -0.015 min
Response: 721599
Conc: 113.38 ppm



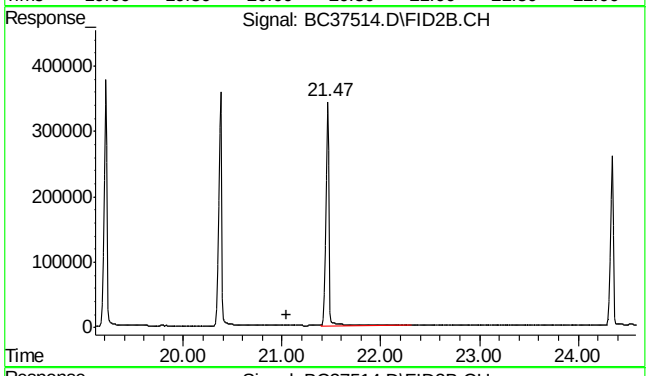
#38 c-26

R.T.: 19.217 min
Delta R.T.: -0.014 min
Response: 716158
Conc: 113.32 ppm



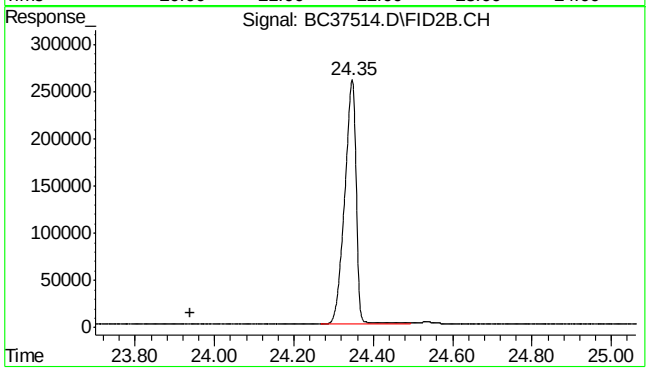
#39 c-28

R.T.: 20.378 min
Delta R.T.: -0.014 min
Response: 715561
Conc: 112.85 ppm



#40 c-30

R.T.: 21.050 min
Delta R.T.: 0.000 min
Response: 730604
Conc: 114.69 ppm m



#41 c-36

R.T.: 23.940 min
Delta R.T.: 0.000 min
Response: 523218
Conc: 103.08 ppm m

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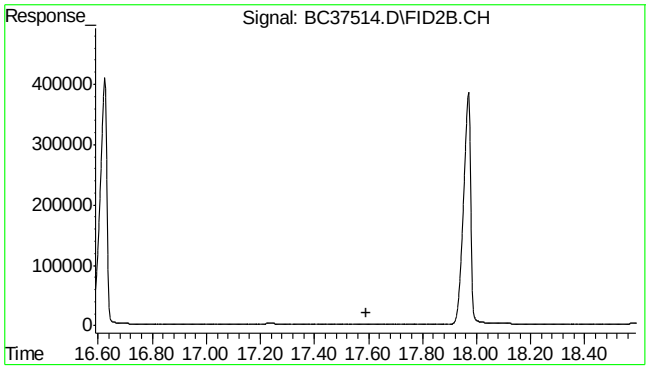


#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.2

10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37515.D\FID1A.CH Vial: 81
Signal #2 : C:\MSDCHEM\1\DATA\BC37515.D\FID2B.CH
Acq On : 3-8-10 08:02:03 PM Operator: KimD
Sample : icc1911-50 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:44:16 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:44:08 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s 2-fluorobiphenyl	9.37	286635	49.503	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery	= 247.52%#			
6) s 2-bromonaphthalene	10.47	191247	49.108	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery	= 245.54%#			
11) s o-terphenyl	14.23	337967	50.442	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery	= 252.21%#			
22) s bht	0.00	0	N.D.	ppm	d
23) s BHT	0.00	0	N.D.	ppm	d
35) s 1-chlorooctadecane	15.80	251354	25.551	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery	= 127.76%			
42) s BHT	0.00	0	N.D.	ppm	
Target Compounds					
1) h c11-c22 aromatics (Unadj.)	0.00	0	N.D.	ppm	
2) naphthalene	7.29	320896	49.509	ppm	
3) 2-methylnaphthalene	8.58	310912	49.212	ppm	
5) acenaphthylene	10.23	320250	49.837	ppm	
7) acenaphthene	10.59	332829	49.985	ppm	
8) fluorene	11.53	309454	49.000	ppm	
9) phenanthrene	13.29	319891	49.035	ppm	
10) anthracene	13.38	312719	50.855	ppm	
12) fluoranthene	15.54	321118	50.972	ppm	
13) pyrene	15.93f	331051	51.095	ppm	
14) benzo(a)anthracene	18.25	269629	52.858	ppm	
15) chrysene	18.33	311096	52.402	ppm	
16) benzo(b)fluoranthene	20.18	298869	54.636	ppm	
17) benzo(k)fluoranthene	20.23	299969	55.465	ppm	
18) benzo(a)pyrene	20.69	298539	45.042	ppm	
19) indeno(1,2,3-cd)pyrene	22.38	262861	NoCal	ppm	
20) dibenzo(ah)anthracene	22.44	245735	NoCal	ppm	
21) benzo(ghi)perylene	22.72	265545	51.293	ppm	
25) h c-9	3.30	329812	26.563	ppm	
26) h c-10	4.69	336345	29.299	ppm	
27) naphthalene #2	7.51	371991	28.951	ppm	
28) c-12	7.69	347665	29.851	ppm	
29) 2-methylnaphthalene #2	8.78	335676	28.566	ppm	
30) c-14	9.87	322893	30.080	ppm	
31) c-16	11.81	324694	30.335	ppm	
32) c-18	13.56	331037	30.424	ppm	
33) c-19	14.37	327878	29.863	ppm	
34) c-20	15.15	326532	30.717	ppm	
36) c-22	16.61	331122	30.171	ppm	
37) c-24	17.96	331926	29.321	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37515.D EPH030810.M Wed Mar 17 13:34:40 2010 RPGEN1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37515.D\FID1A.CH Vial: 81
Signal #2 : C:\MSDCHEM\1\DATA\BC37515.D\FID2B.CH
Acq On : 3-8-10 08:02:03 PM Operator: KimD
Sample : icc1911-50 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:44:16 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:44:08 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	R.T.	Response	Conc	Units
38)		c-26	19.20	327047	28.963	ppm
39)		c-28	20.36	322913	28.941	ppm
40)	h	c-30	21.05	320650	31.689	ppm
41)	h	c-36	23.94	182616	32.554	ppm

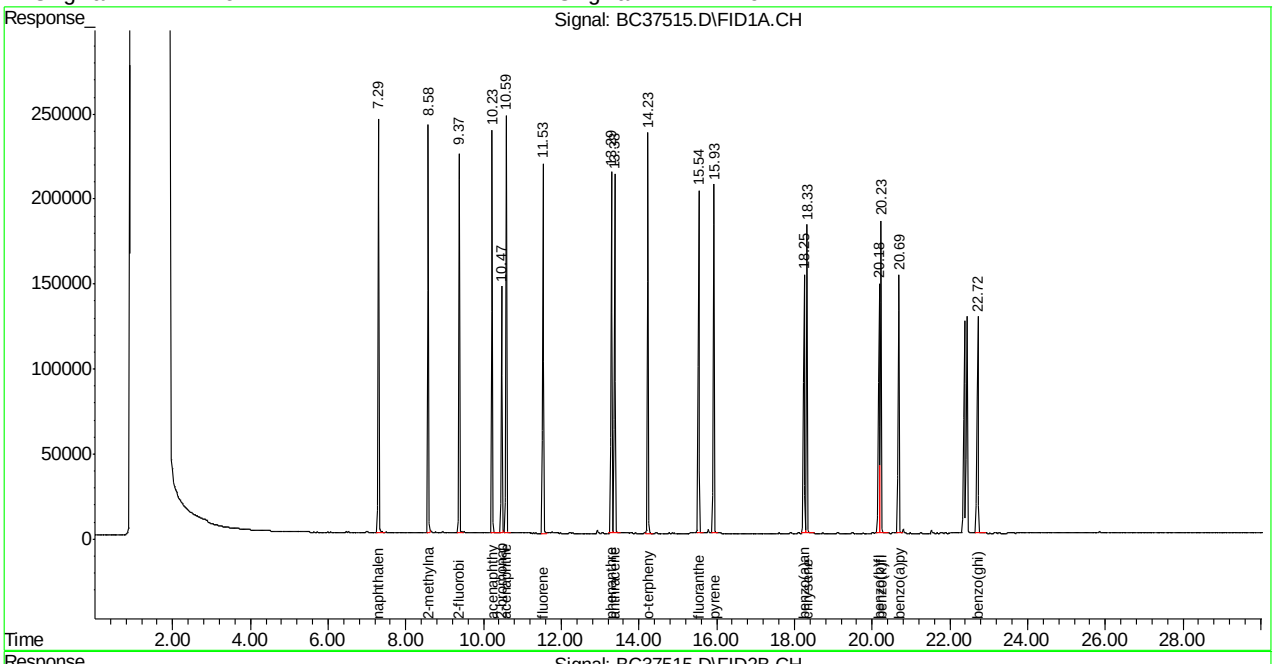
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37515.D EPH030810.M Wed Mar 17 13:34:40 2010 RPGEN1

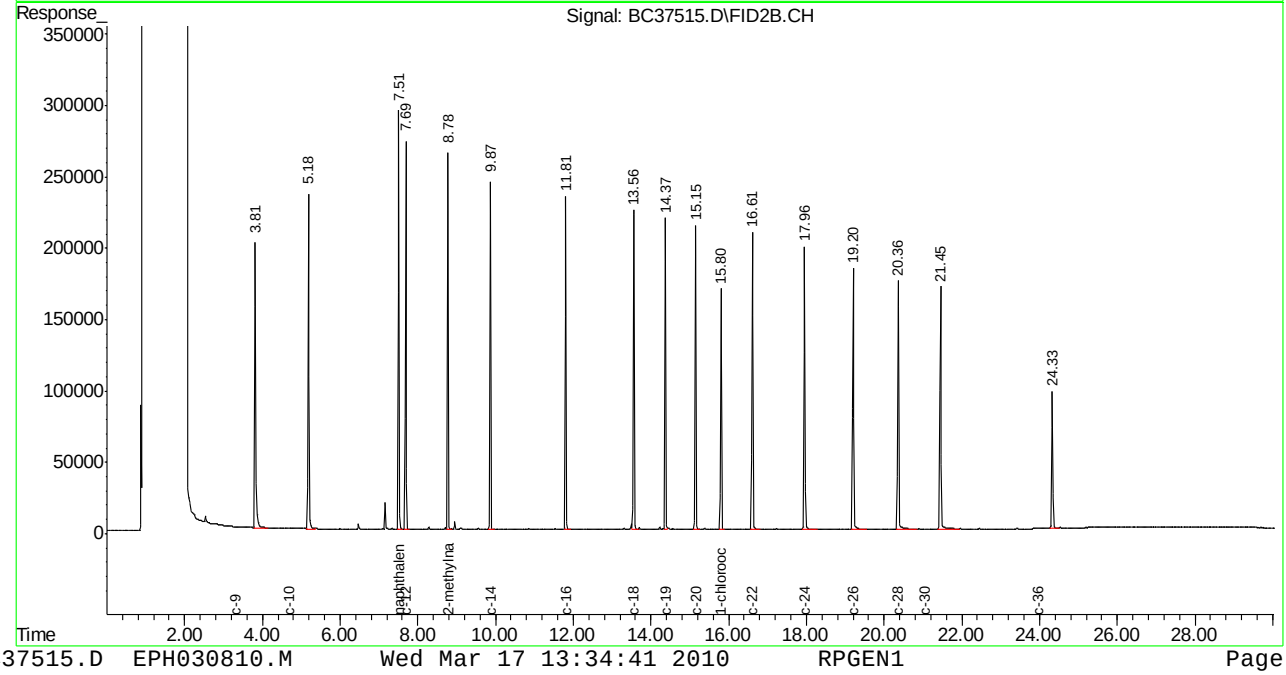
Quantitation Report (QT Reviewed)

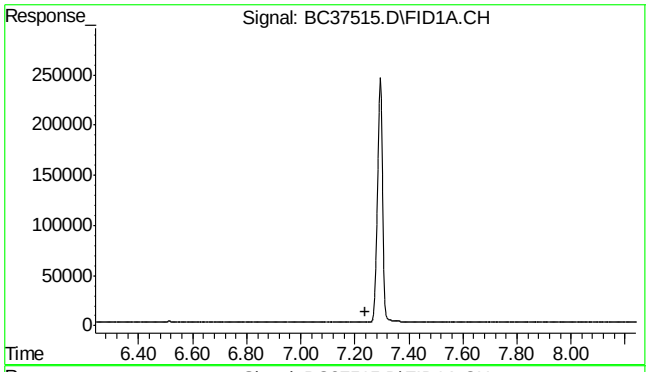
Signal #1 : C:\MSDCHEM\1\DATA\BC37515.D\FID1A.CH Vial: 81
Signal #2 : C:\MSDCHEM\1\DATA\BC37515.D\FID2B.CH
Acq On : 3-8-10 08:02:03 PM Operator: KimD
Sample : icc1911-50 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 10:37 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:44:08 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

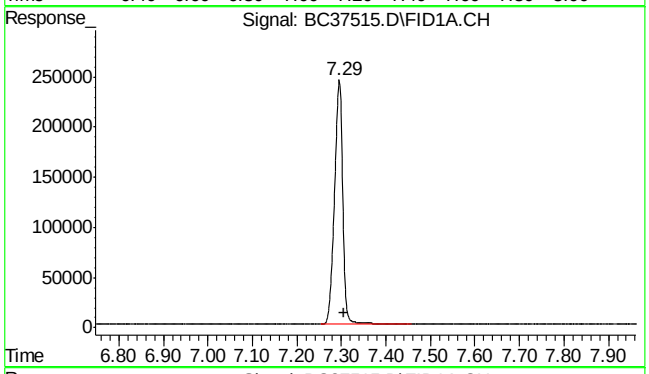






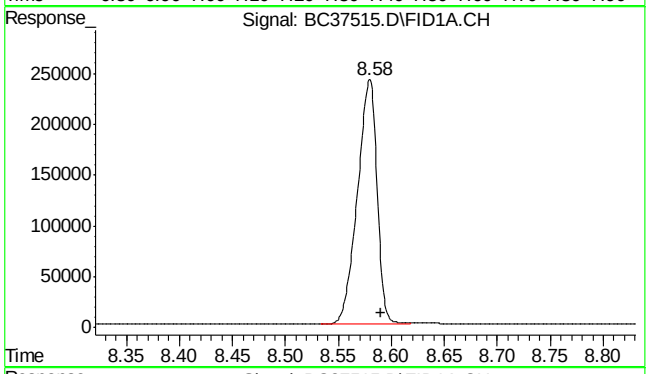
#1 c11-c22 aromatics (Unadj.)

R.T.: 0.000 min
Exp R.T. : 7.240 min
Response: 0
Conc: N.D.



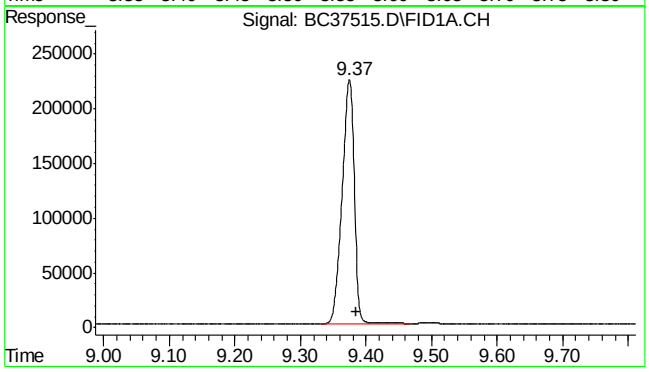
#2 naphthalene

R.T.: 7.295 min
Delta R.T.: -0.010 min
Response: 320896
Conc: 49.51 ppm



#3 2-methylnaphthalene

R.T.: 8.579 min
Delta R.T.: -0.011 min
Response: 310912
Conc: 49.21 ppm



#4 2-fluorobiphenyl

R.T.: 9.374 min
Delta R.T.: -0.010 min
Response: 286635
Conc: 49.50 ppm

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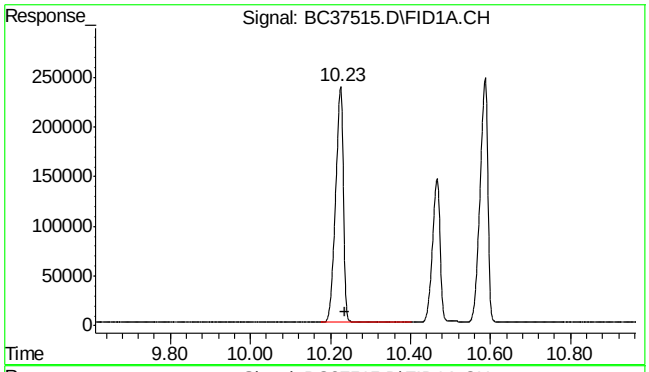
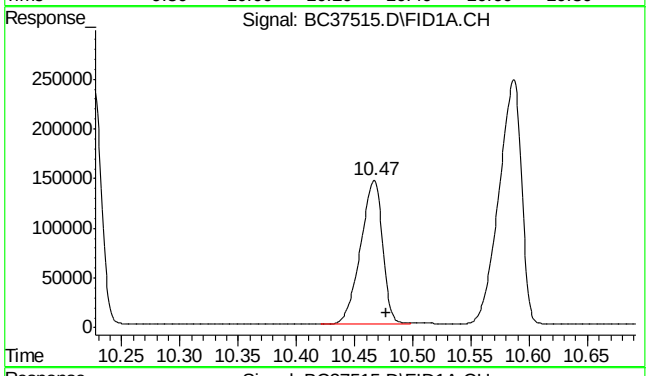


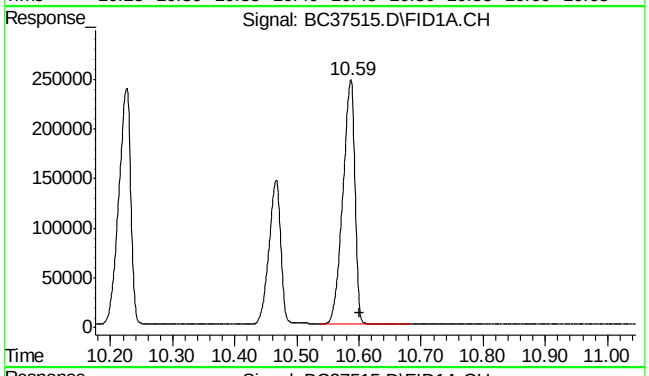
#5 acenaphthylene

R.T.: 10.226 min
Delta R.T.: -0.011 min
Response: 320250
Conc: 49.84 ppm



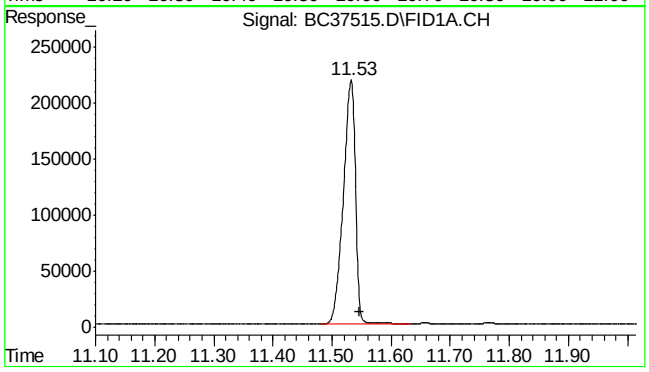
#6 2-bromonaphthalene

R.T.: 10.467 min
Delta R.T.: -0.011 min
Response: 191247
Conc: 49.11 ppm



#7 acenaphthene

R.T.: 10.587 min
Delta R.T.: -0.013 min
Response: 332829
Conc: 49.99 ppm



#8 fluorene

R.T.: 11.532 min
Delta R.T.: -0.013 min
Response: 309454
Conc: 49.00 ppm

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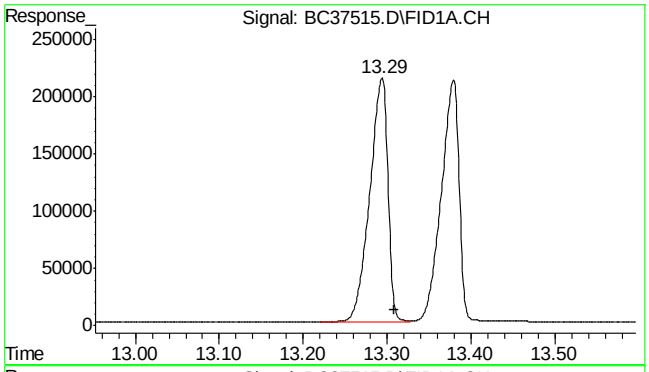
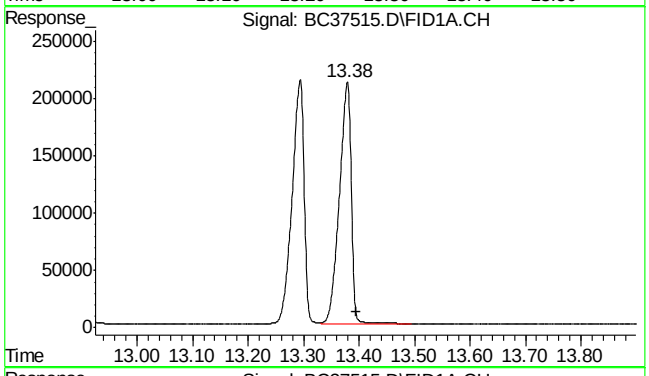


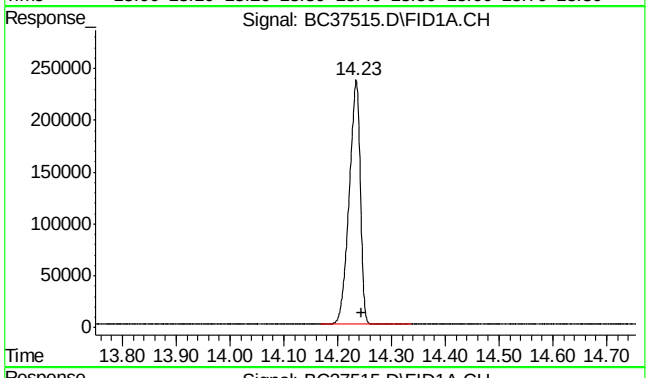
#9 phenanthrene

R.T.: 13.294 min
Delta R.T.: -0.014 min
Response: 319891
Conc: 49.04 ppm



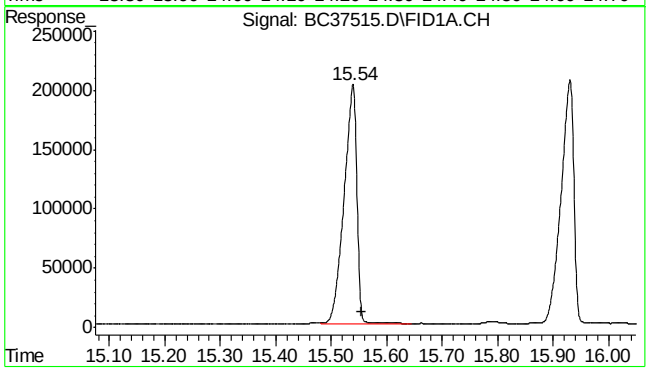
#10 anthracene

R.T.: 13.379 min
Delta R.T.: -0.016 min
Response: 312719
Conc: 50.86 ppm



#11 o-terphenyl

R.T.: 14.234 min
Delta R.T.: -0.011 min
Response: 337967
Conc: 50.44 ppm



#12 fluoranthene

R.T.: 15.539 min
Delta R.T.: -0.017 min
Response: 321118
Conc: 50.97 ppm

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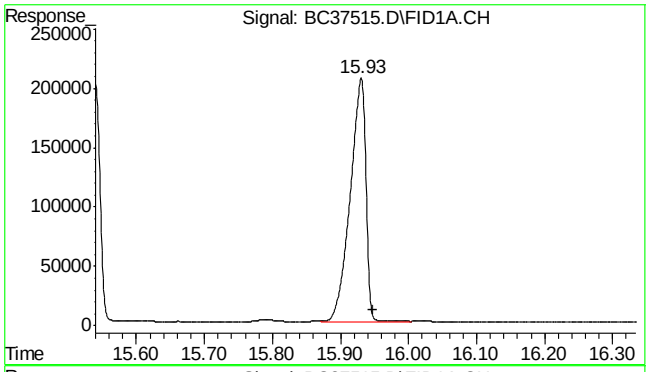
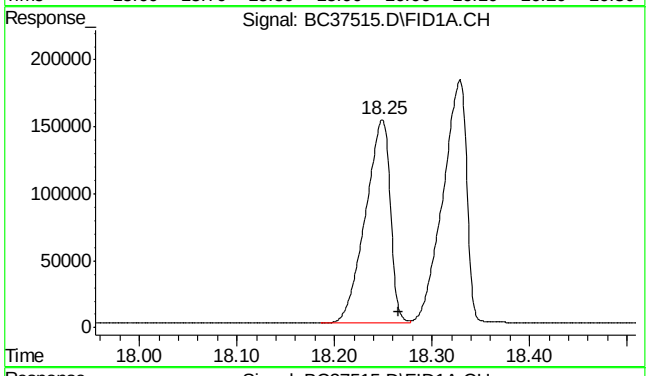


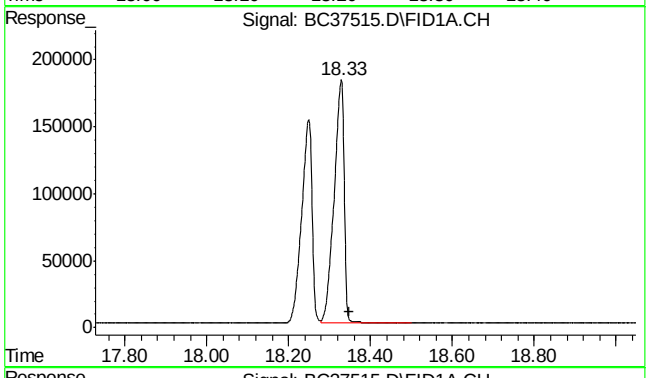
#13 pyrene

R.T.: 15.930 min
Delta R.T.: -0.018 min
Response: 331051
Conc: 51.09 ppm



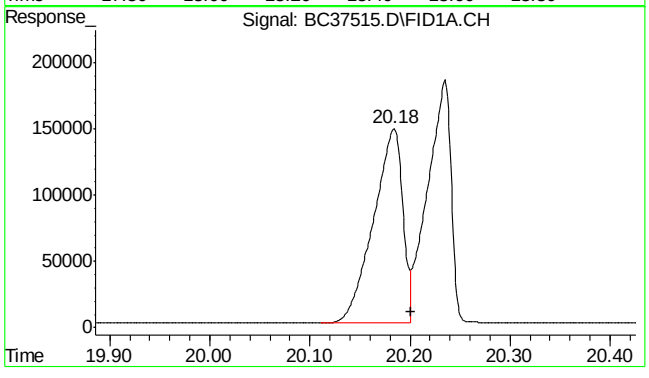
#14 benzo(a)anthracene

R.T.: 18.249 min
Delta R.T.: -0.017 min
Response: 269629
Conc: 52.86 ppm



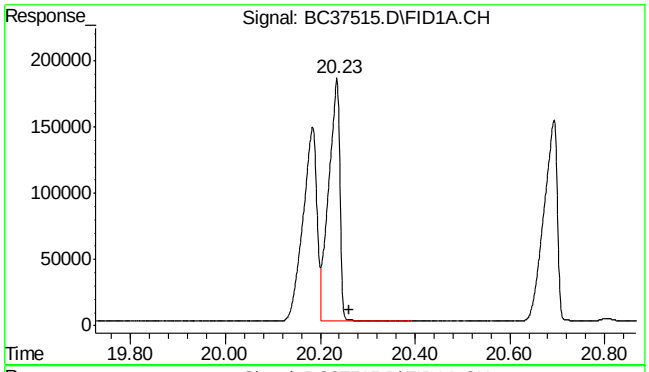
#15 chrysene

R.T.: 18.328 min
Delta R.T.: -0.021 min
Response: 311096
Conc: 52.40 ppm



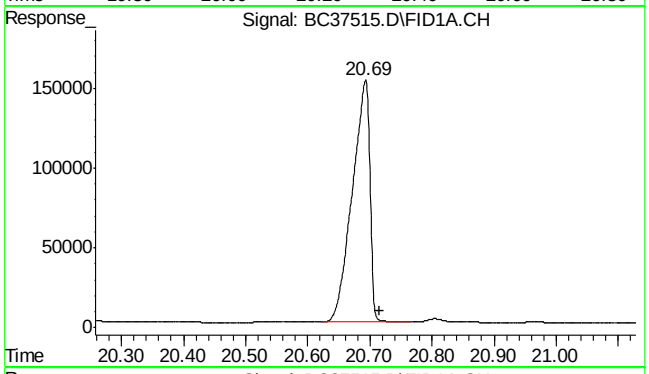
#16 benzo(b)fluoranthene

R.T.: 20.183 min
Delta R.T.: -0.018 min
Response: 298869
Conc: 54.64 ppm



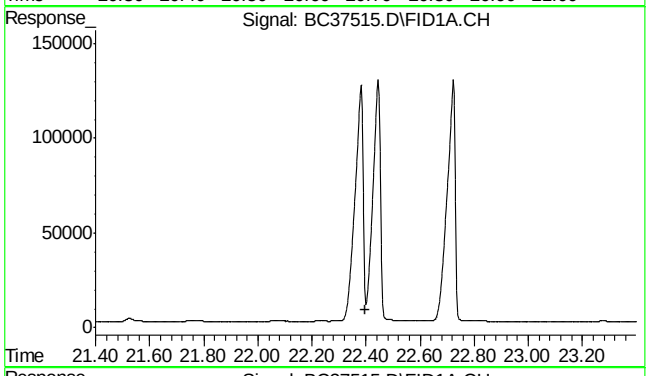
#17 benzo(k)fluoranthene

R.T.: 20.235 min
Delta R.T.: -0.026 min
Response: 299969
Conc: 55.47 ppm



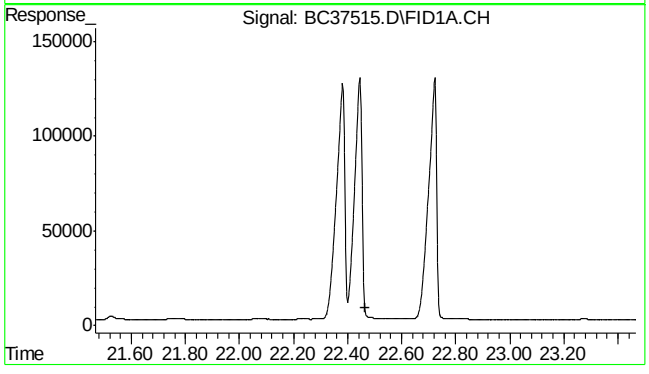
#18 benzo(a)pyrene

R.T.: 20.693 min
Delta R.T.: -0.022 min
Response: 298539
Conc: 45.04 ppm



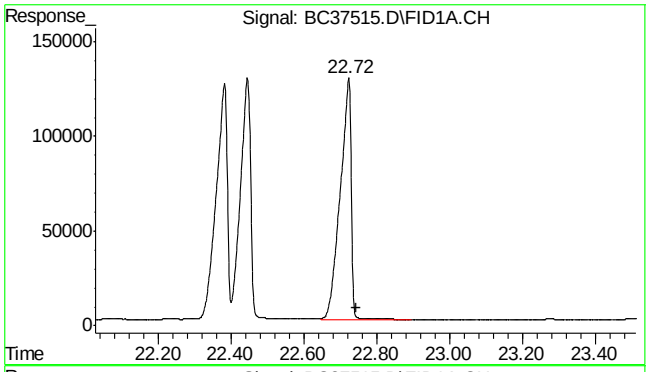
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.382 min
Delta R.T.: -0.017 min
Response: 262861
Conc: N.D.



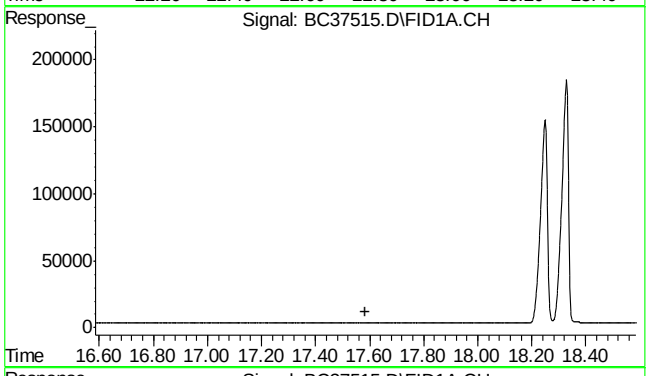
#20 dibenzo(ah)anthracene

R.T.: 22.444 min
Delta R.T.: -0.023 min
Response: 245735
Conc: N.D.



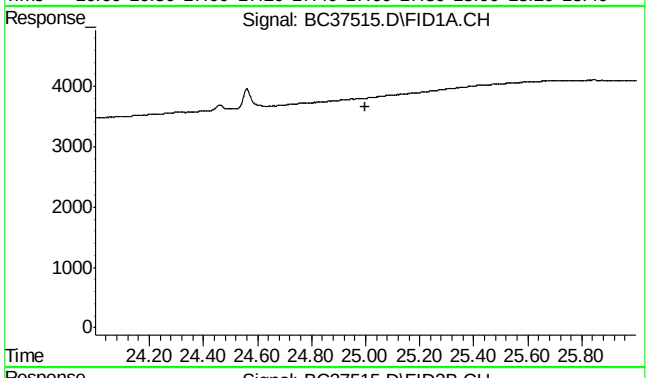
#21 benzo(ghi)perylene

R.T.: 22.722 min
Delta R.T.: -0.021 min
Response: 265545
Conc: 51.29 ppm



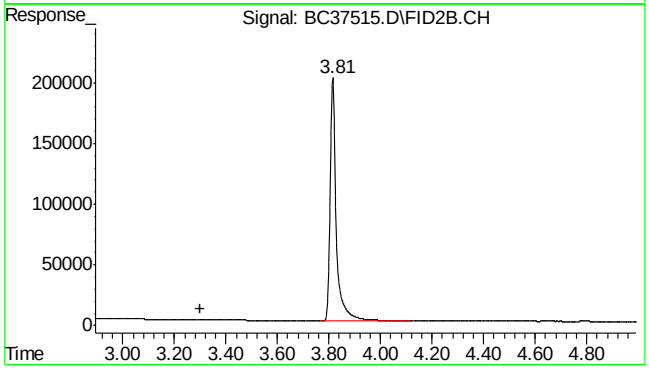
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



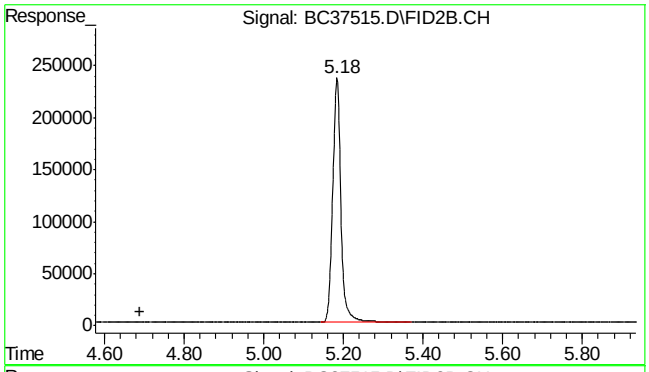
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



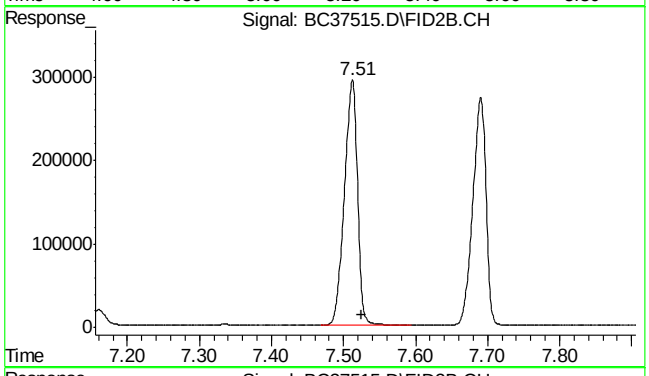
#25 c-9

R.T.: 3.300 min
Delta R.T.: 0.000 min
Response: 329812
Conc: 26.56 ppm m



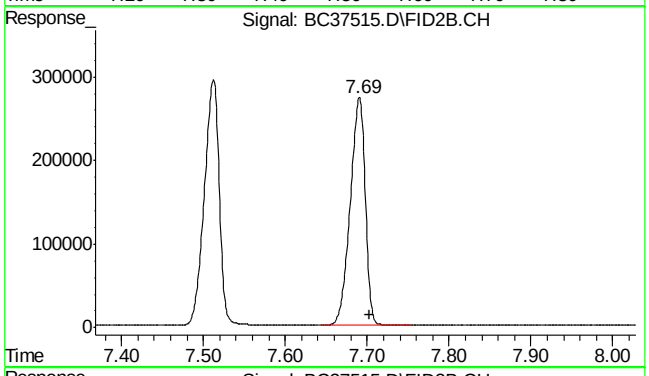
#26 c-10

R.T.: 4.690 min
Delta R.T.: 0.000 min
Response: 336345
Conc: 29.30 ppm m



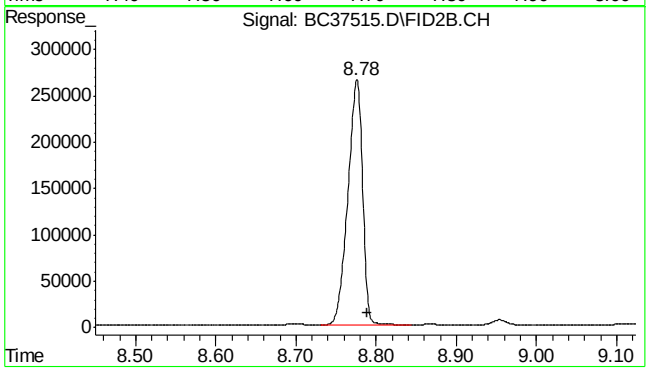
#27 naphthalene #2

R.T.: 7.512 min
Delta R.T.: -0.013 min
Response: 371991
Conc: 28.95 ppm



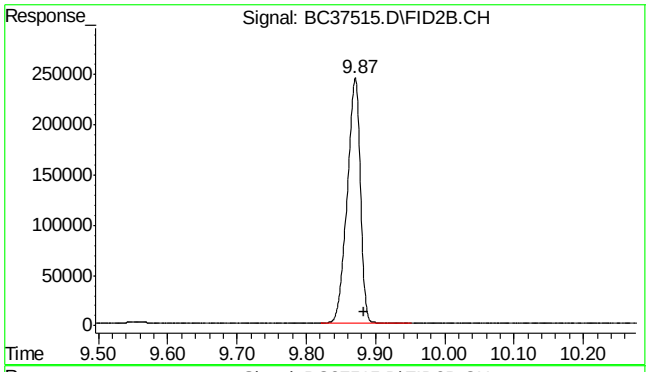
#28 c-12

R.T.: 7.690 min
Delta R.T.: -0.013 min
Response: 347665
Conc: 29.85 ppm



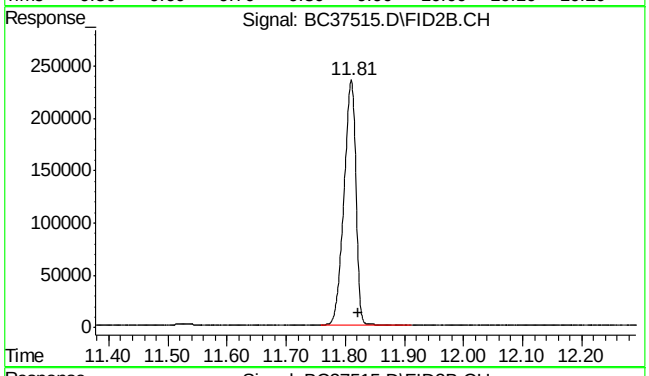
#29 2-methylnaphthalene #2

R.T.: 8.776 min
Delta R.T.: -0.013 min
Response: 335676
Conc: 28.57 ppm



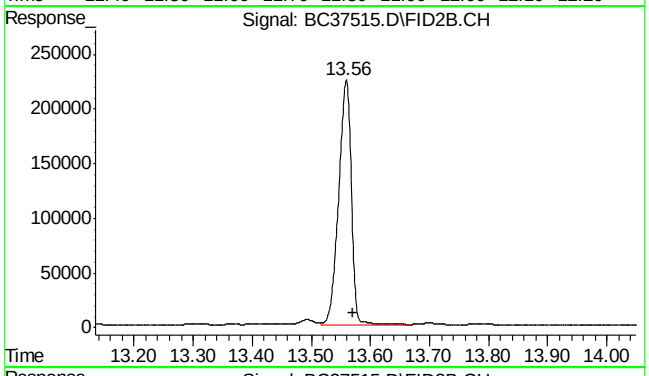
#30 c-14

R.T.: 9.871 min
Delta R.T.: -0.012 min
Response: 322893
Conc: 30.08 ppm



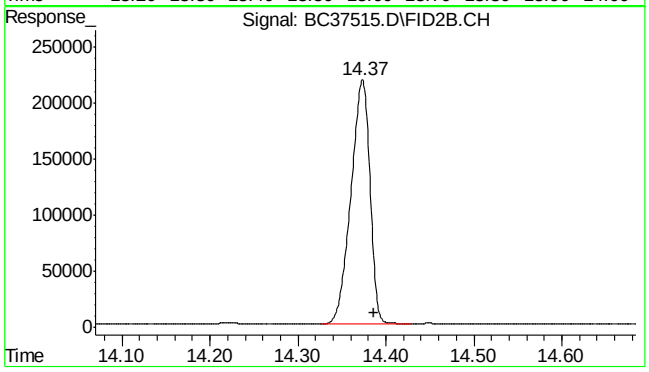
#31 c-16

R.T.: 11.810 min
Delta R.T.: -0.013 min
Response: 324694
Conc: 30.33 ppm



#32 c-18

R.T.: 13.559 min
Delta R.T.: -0.012 min
Response: 331037
Conc: 30.42 ppm



#33 c-19

R.T.: 14.373 min
Delta R.T.: -0.013 min
Response: 327878
Conc: 29.86 ppm

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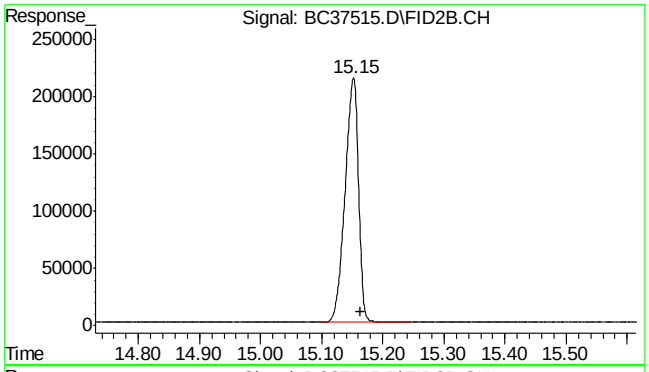
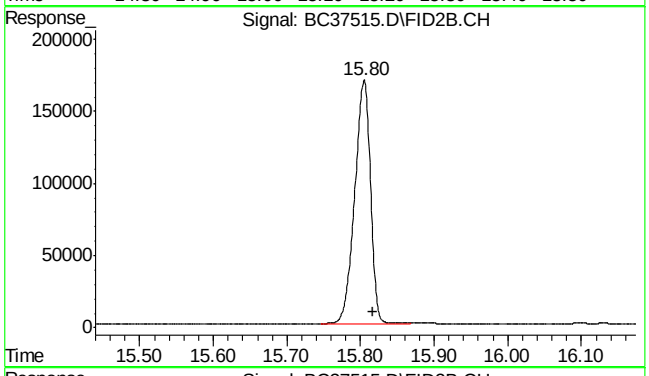


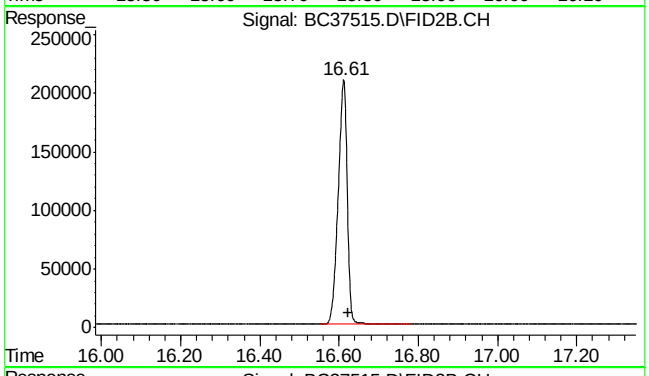
#34 c-20

R.T.: 15.152 min
Delta R.T.: -0.012 min
Response: 326532
Conc: 30.72 ppm



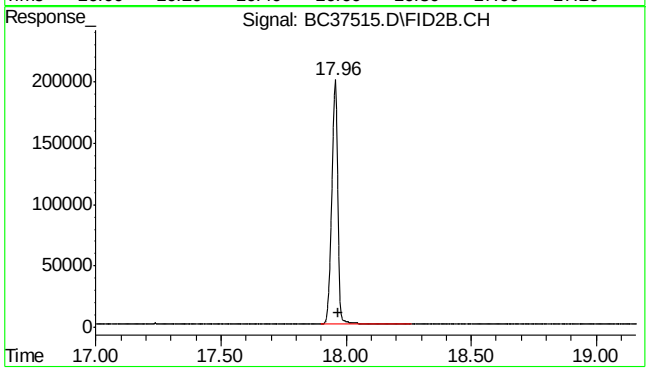
#35 1-chlorooctadecane

R.T.: 15.805 min
Delta R.T.: -0.012 min
Response: 251354
Conc: 25.55 ppm



#36 c-22

R.T.: 16.612 min
Delta R.T.: -0.012 min
Response: 331122
Conc: 30.17 ppm



#37 c-24

R.T.: 17.957 min
Delta R.T.: -0.013 min
Response: 331926
Conc: 29.32 ppm

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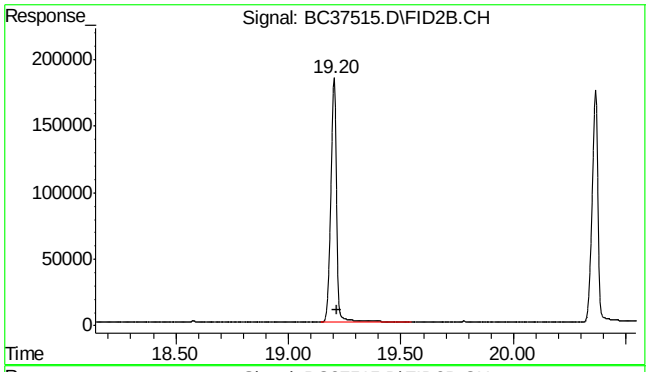
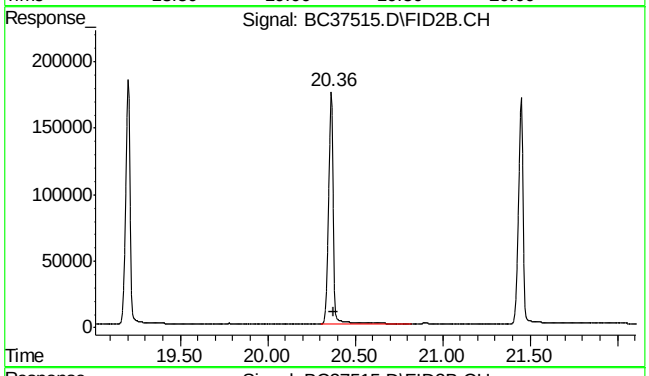


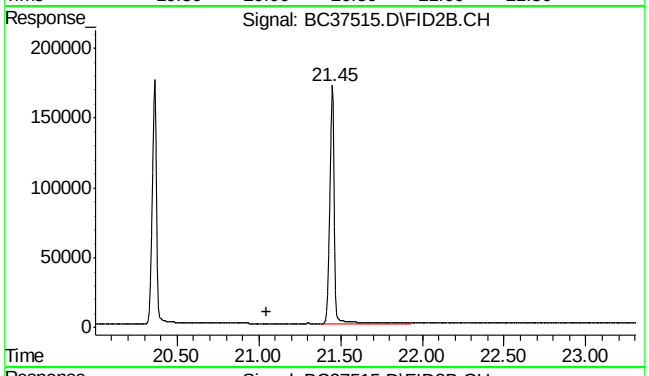
#38 c-26

R.T.: 19.202 min
Delta R.T.: -0.014 min
Response: 327047
Conc: 28.96 ppm



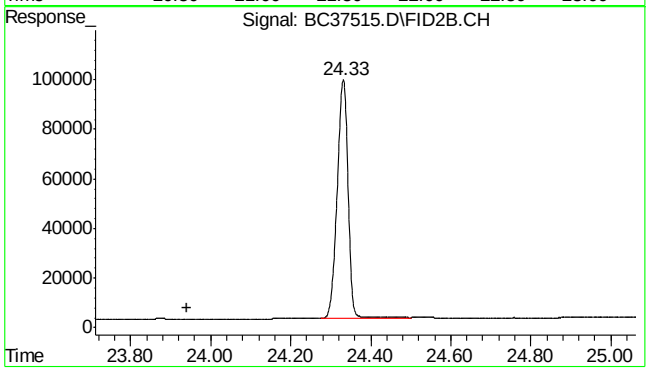
#39 c-28

R.T.: 20.364 min
Delta R.T.: -0.014 min
Response: 322913
Conc: 28.94 ppm



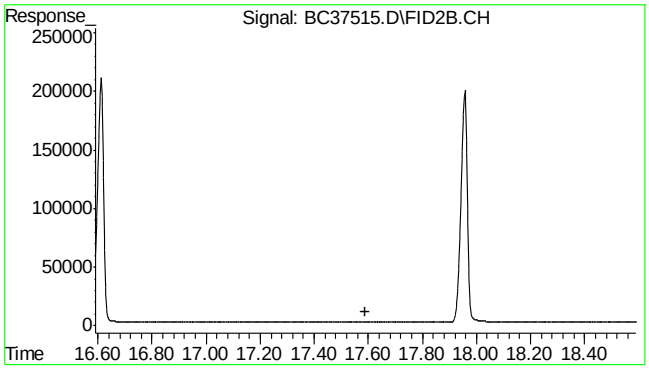
#40 c-30

R.T.: 21.050 min
Delta R.T.: 0.000 min
Response: 320650
Conc: 31.69 ppm m



#41 c-36

R.T.: 23.940 min
Delta R.T.: 0.000 min
Response: 182616
Conc: 32.55 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.3 10

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/15/10 13:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37516.D\FID1A.CH Vial: 83
Signal #2 : C:\MSDCHEM\1\DATA\BC37516.D\FID2B.CH
Acq On : 3-8-10 08:41:55 PM Operator: KimD
Sample : ic1911-20 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:46:07 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:45:58 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s 2-fluorobiphenyl	9.37	108664	18.829	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 94.14%				
6) s 2-bromonaphthalene	10.46	72529	18.735	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 93.67%				
11) s o-terphenyl	14.23	130119	19.363	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 96.81%				
22) s bht	0.00	0	N.D.	ppm	d
23) s BHT	0.00	0	N.D.	ppm	d
35) s 1-chlorooctadecane	15.80	99422	13.295	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 66.47%				
42) s BHT	0.00	0	N.D.	ppm	
Target Compounds					
1) h c11-c22 aromatics (Unadj.)	0.00	0	N.D.	ppm	
2) naphthalene	7.29	122606	18.978	ppm	
3) 2-methylnaphthalene	8.57	119725	19.051	ppm	
5) acenaphthylene	10.22	122526	19.088	ppm	
7) acenaphthene	10.58	128932	19.365	ppm	
8) fluorene	11.52	116029	18.496	ppm	
9) phenanthrene	13.28	120191	18.543	ppm	
10) anthracene	13.36	118833	19.215	ppm	
12) fluoranthene	15.52	123009	19.400	ppm	
13) pyrene	15.91	126307	19.353	ppm	
14) benzo(a)anthracene	18.23	99597	19.943	ppm	
15) chrysene	18.31	118728	19.684	ppm	
16) benzo(b)fluoranthene	20.16	110933	19.390	ppm	
17) benzo(k)fluoranthene	20.21	115858	20.669	ppm	
18) benzo(a)pyrene	20.67	113293	11.105	ppm	
19) indeno(1,2,3-cd)pyrene	22.36	99315	BelowCal	ppm	
20) dibenzo(ah)anthracene	22.42	92392	7.121	ppm	
21) benzo(ghi)perylene	22.69f	106185	N.D.	ppm	
25) h c-9	3.30	136418	12.962	ppm	
26) h c-10	4.69	141172	14.010	ppm	
27) naphthalene #2	7.50	154661	13.908	ppm	
28) c-12	7.68	145074	14.188	ppm	
29) 2-methylnaphthalene #2	8.77	139789	13.700	ppm	
30) c-14	9.86	135162	14.221	ppm	
31) c-16	11.80	136689	14.261	ppm	
32) c-18	13.55	138544	13.807	ppm	m
33) c-19	14.36	138515	14.061	ppm	
34) c-20	15.14	137971	14.155	ppm	
36) c-22	16.60	139353	13.742	ppm	
37) c-24	17.95	138192	13.290	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37516.D EPH030810.M Wed Mar 17 13:34:55 2010 RPGEN1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37516.D\FID1A.CH Vial: 83
Signal #2 : C:\MSDCHEM\1\DATA\BC37516.D\FID2B.CH
Acq On : 3-8-10 08:41:55 PM Operator: KimD
Sample : ic1911-20 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:46:07 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:45:58 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	R.T.	Response	Conc	Units
38)		c-26	19.20	135054	13.345	ppm
39)		c-28	20.35	128305	13.193	ppm
40)	h	c-30	21.05	118252	13.540	ppm
41)	h	c-36	23.94	49297	21.313	ppm

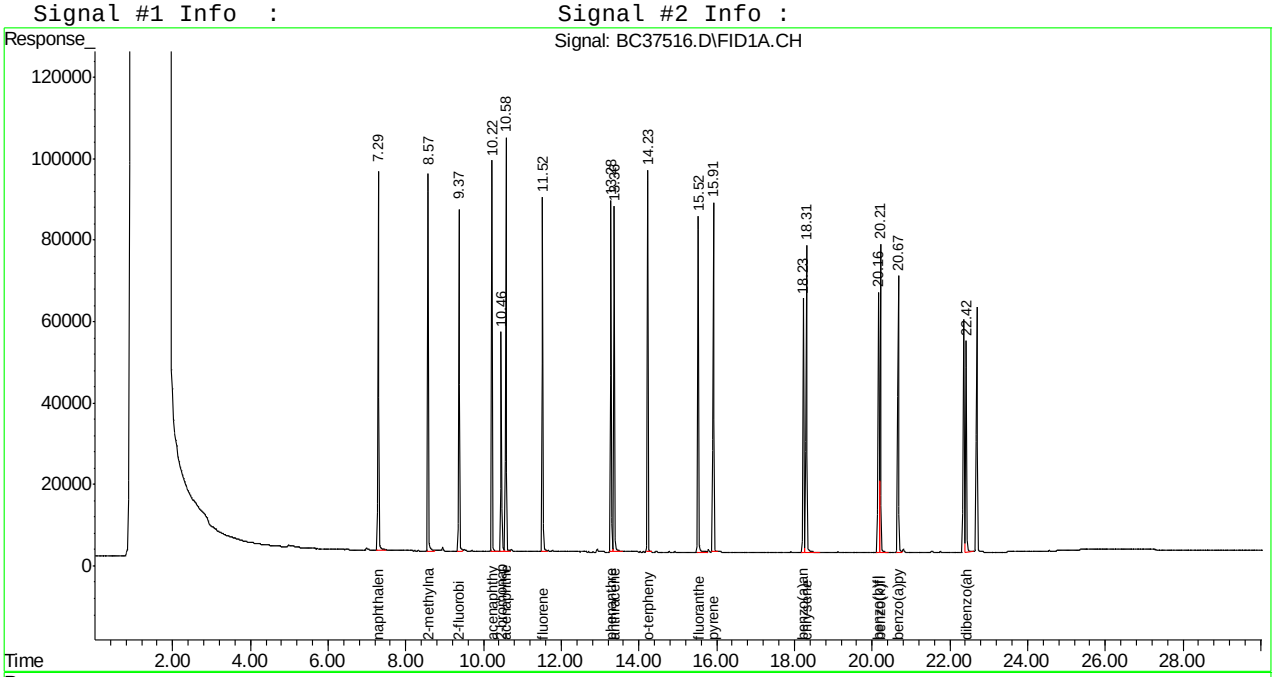
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37516.D EPH030810.M Wed Mar 17 13:34:56 2010 RPGEN1

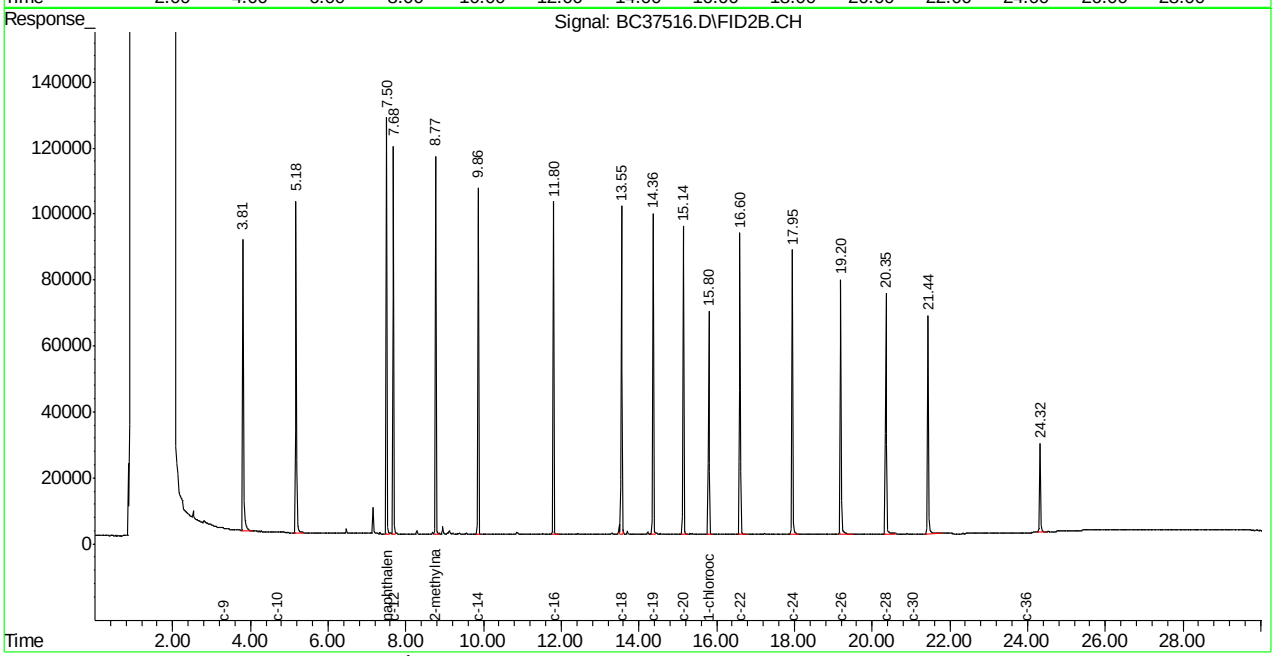
Quantitation Report (QT Reviewed)

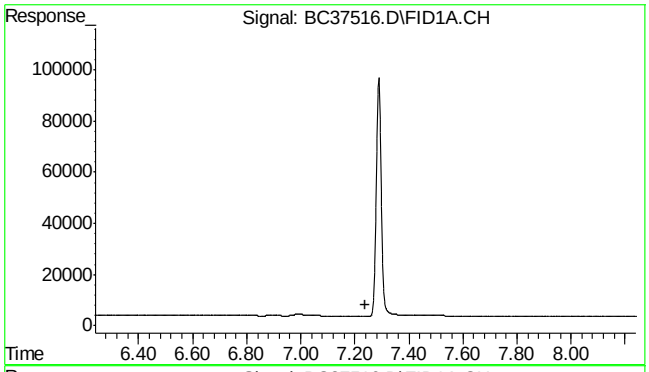
Signal #1 : C:\MSDCHEM\1\DATA\BC37516.D\FID1A.CH Vial: 83
Signal #2 : C:\MSDCHEM\1\DATA\BC37516.D\FID2B.CH
Acq On : 3-8-10 08:41:55 PM Operator: KimD
Sample : ic1911-20 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 9:47 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:45:58 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

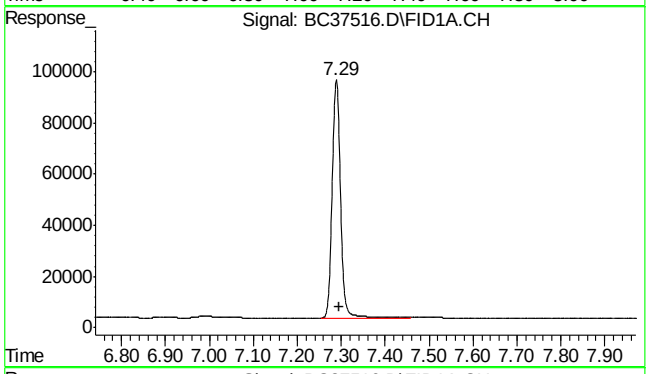






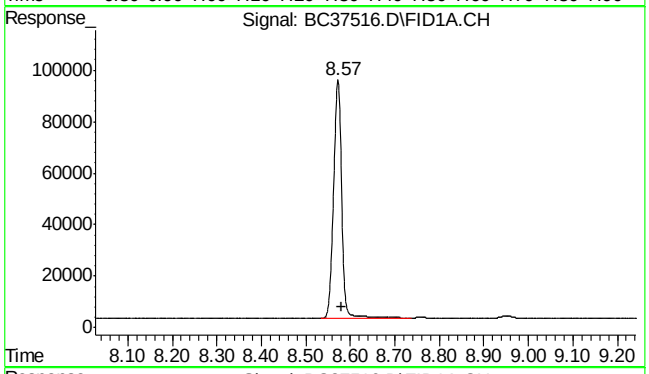
#1 c11-c22 aromatics (Unadj.)

R.T.: 0.000 min
Exp R.T. : 7.240 min
Response: 0
Conc: N.D.



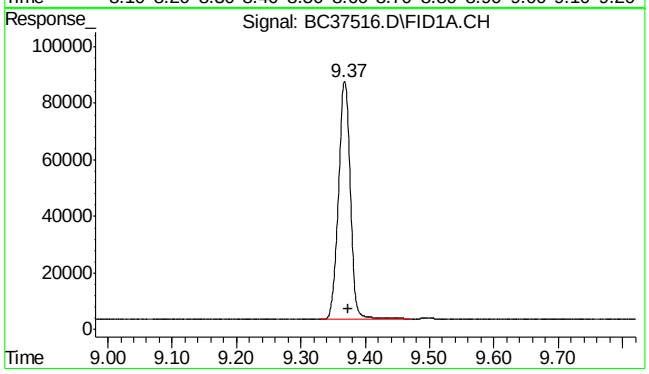
#2 naphthalene

R.T.: 7.289 min
Delta R.T.: -0.006 min
Response: 122606
Conc: 18.98 ppm



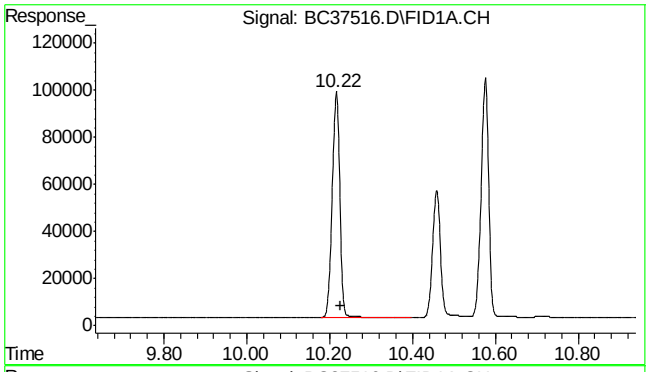
#3 2-methylnaphthalene

R.T.: 8.572 min
Delta R.T.: -0.008 min
Response: 119725
Conc: 19.05 ppm



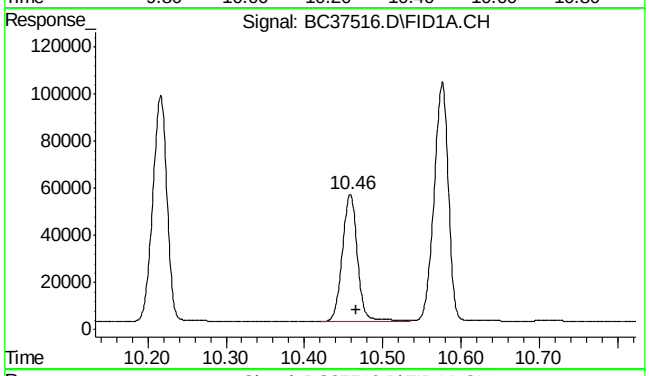
#4 2-fluorobiphenyl

R.T.: 9.367 min
Delta R.T.: -0.007 min
Response: 108664
Conc: 18.83 ppm



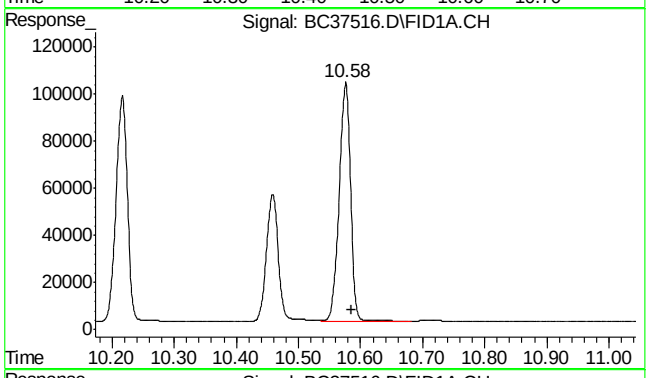
#5 acenaphthylene

R.T.: 10.217 min
Delta R.T.: -0.009 min
Response: 122526
Conc: 19.09 ppm



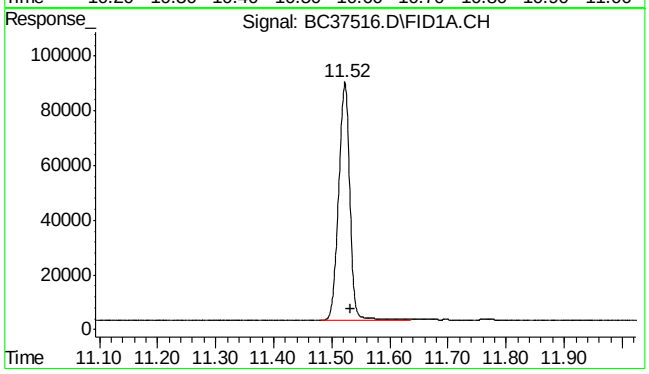
#6 2-bromonaphthalene

R.T.: 10.458 min
Delta R.T.: -0.008 min
Response: 72529
Conc: 18.74 ppm



#7 acenaphthene

R.T.: 10.576 min
Delta R.T.: -0.011 min
Response: 128932
Conc: 19.37 ppm



#8 fluorene

R.T.: 11.522 min
Delta R.T.: -0.010 min
Response: 116029
Conc: 18.50 ppm

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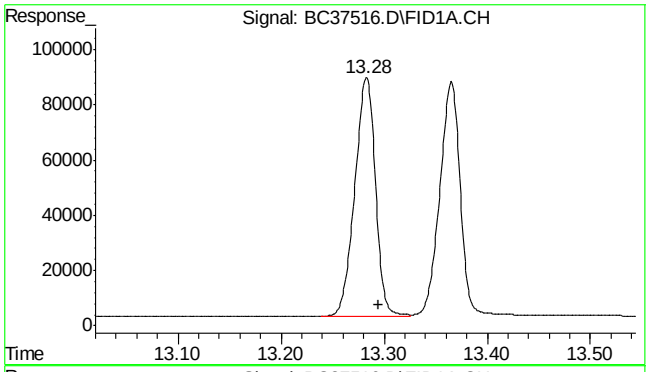
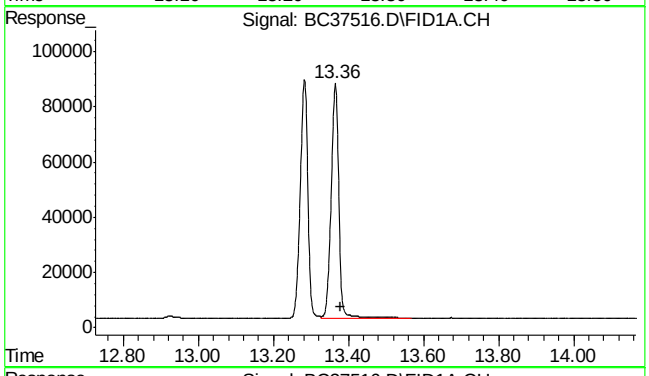


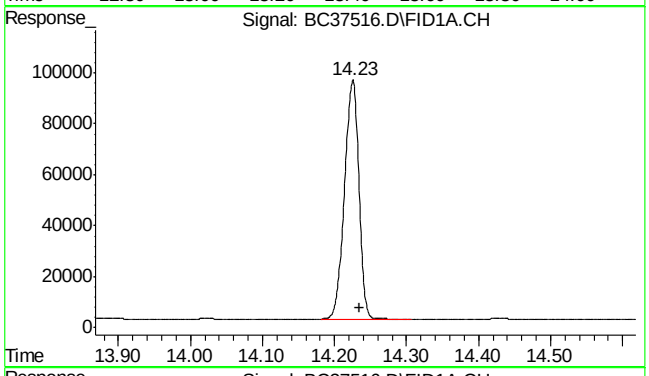
#9 phenanthrene

R.T.: 13.282 min
Delta R.T.: -0.012 min
Response: 120191
Conc: 18.54 ppm



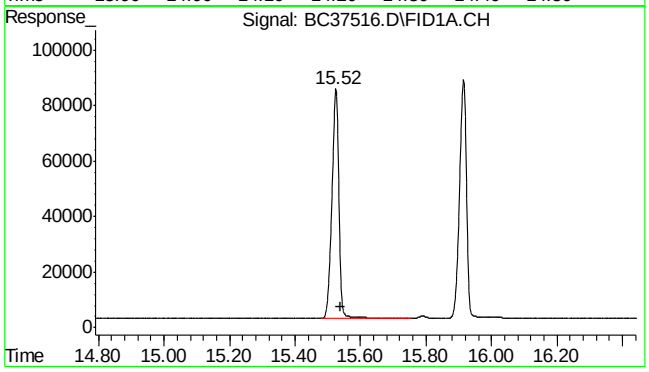
#10 anthracene

R.T.: 13.365 min
Delta R.T.: -0.014 min
Response: 118833
Conc: 19.22 ppm



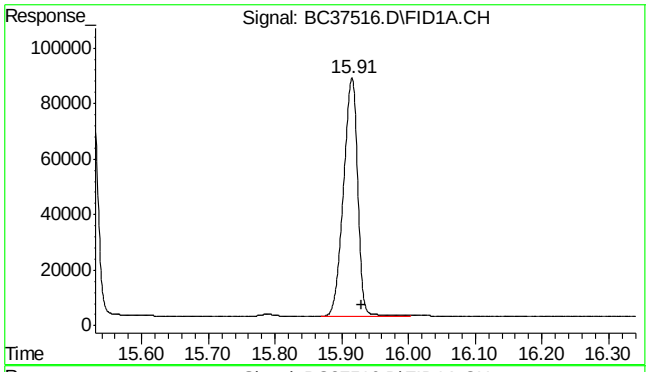
#11 o-terphenyl

R.T.: 14.226 min
Delta R.T.: -0.008 min
Response: 130119
Conc: 19.36 ppm



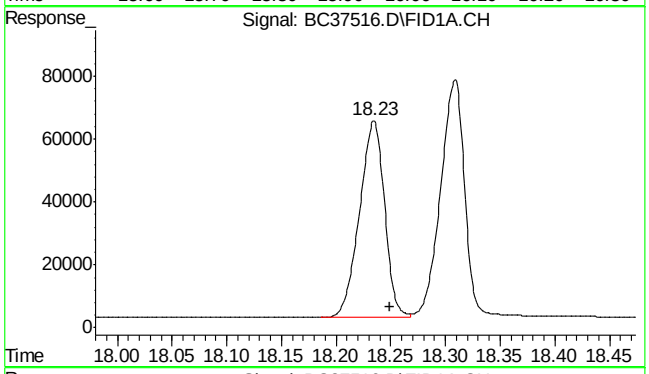
#12 fluoranthene

R.T.: 15.525 min
Delta R.T.: -0.014 min
Response: 123009
Conc: 19.40 ppm



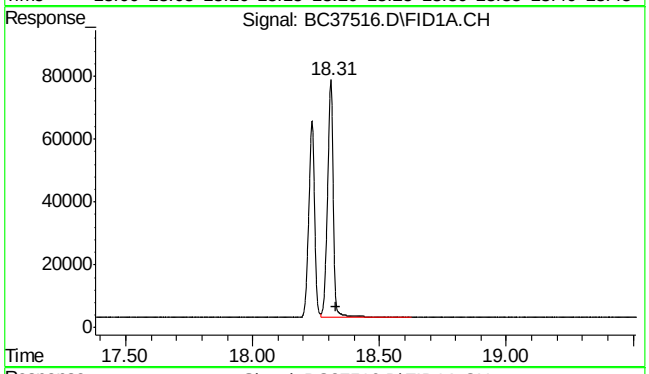
#13 pyrene

R.T.: 15.915 min
Delta R.T.: -0.015 min
Response: 126307
Conc: 19.35 ppm



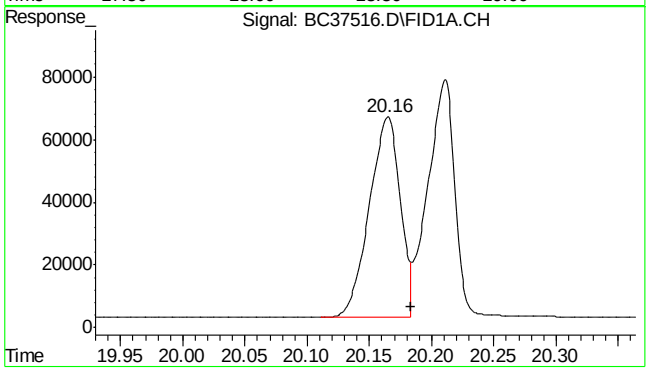
#14 benzo(a)anthracene

R.T.: 18.234 min
Delta R.T.: -0.015 min
Response: 99597
Conc: 19.94 ppm



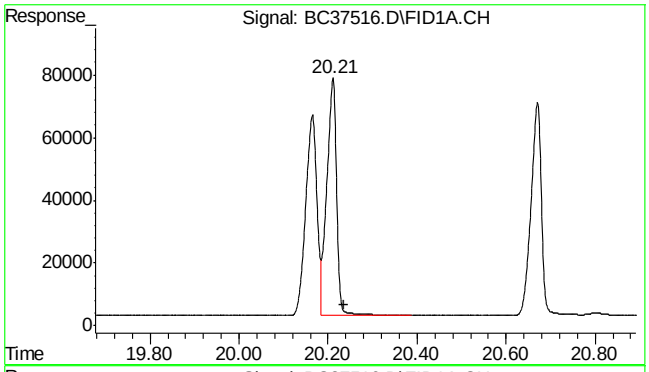
#15 chrysene

R.T.: 18.309 min
Delta R.T.: -0.019 min
Response: 118728
Conc: 19.68 ppm



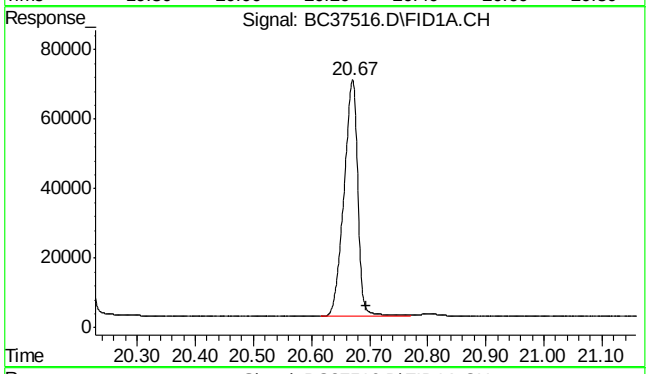
#16 benzo(b)fluoranthene

R.T.: 20.165 min
Delta R.T.: -0.018 min
Response: 110933
Conc: 19.39 ppm



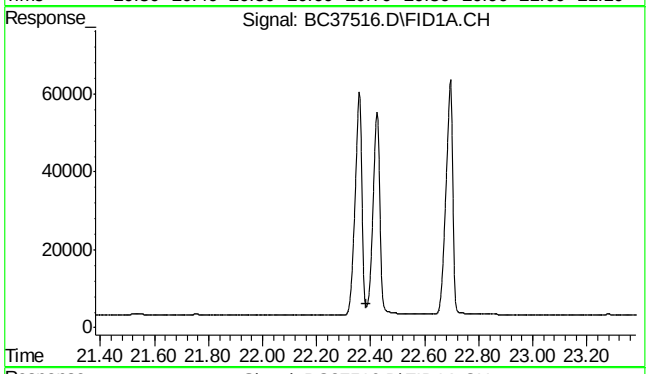
#17 benzo(k)fluoranthene

R.T.: 20.211 min
Delta R.T.: -0.024 min
Response: 115858
Conc: 20.67 ppm



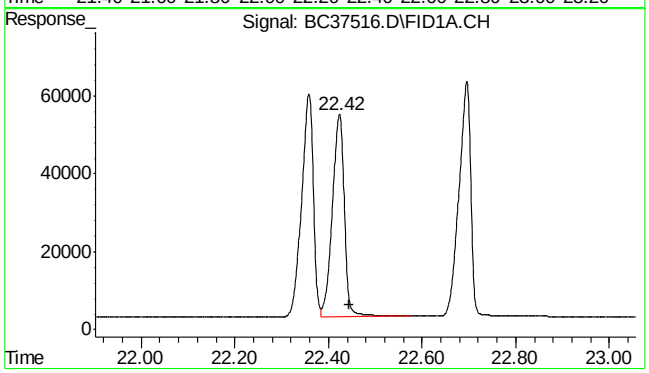
#18 benzo(a)pyrene

R.T.: 20.671 min
Delta R.T.: -0.022 min
Response: 113293
Conc: 11.10 ppm



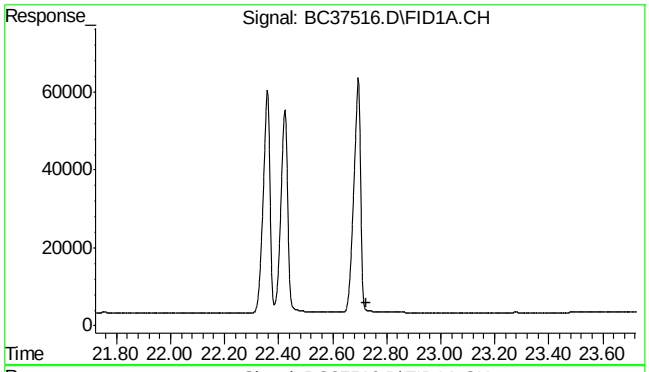
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.357 min
Delta R.T.: -0.024 min
Response: 99315
Conc: N.D.



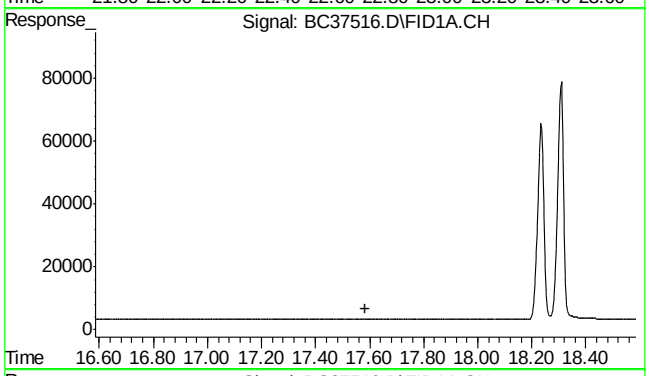
#20 dibenzo(ah)anthracene

R.T.: 22.423 min
Delta R.T.: -0.021 min
Response: 92392
Conc: 7.12 ppm



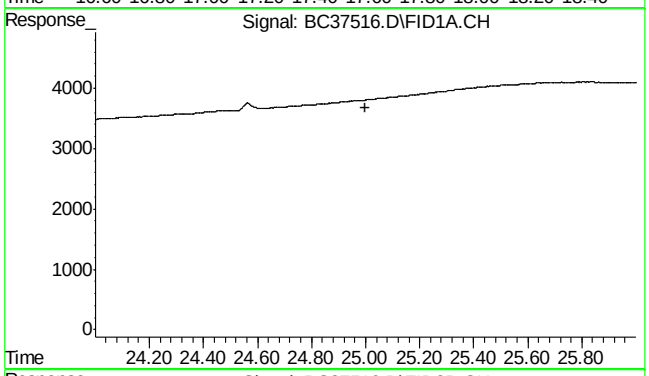
#21 benzo(ghi)perylene

R.T.: 22.695 min
Delta R.T.: -0.027 min
Response: 106185
Conc: N.D.



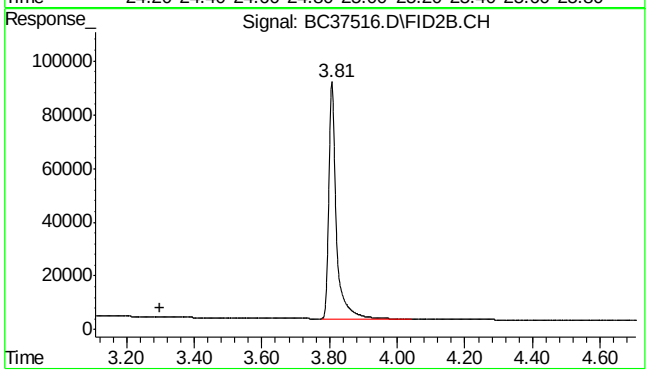
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



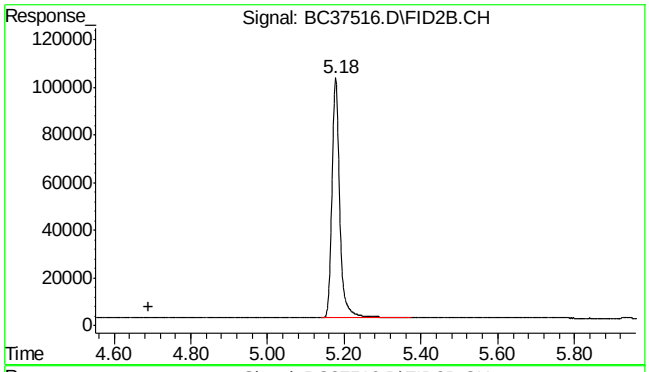
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



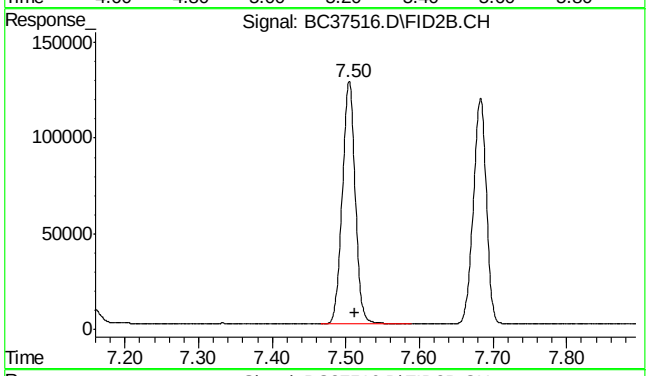
#25 c-9

R.T.: 3.300 min
Delta R.T.: 0.000 min
Response: 136418
Conc: 12.96 ppm m



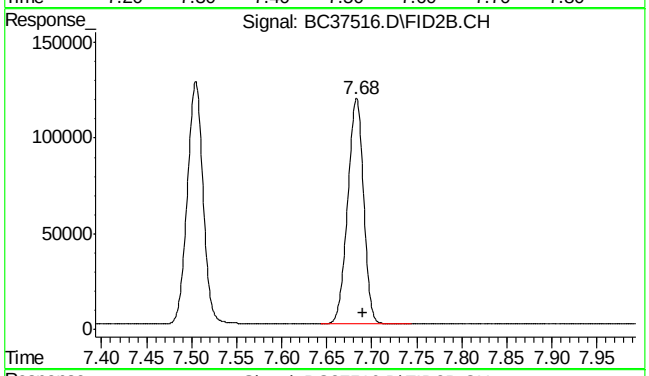
#26 c-10

R.T.: 4.690 min
Delta R.T.: 0.000 min
Response: 141172
Conc: 14.01 ppm m



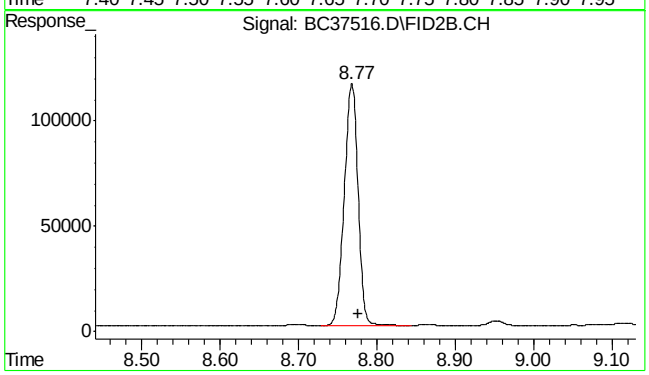
#27 naphthalene #2

R.T.: 7.504 min
Delta R.T.: -0.008 min
Response: 154661
Conc: 13.91 ppm



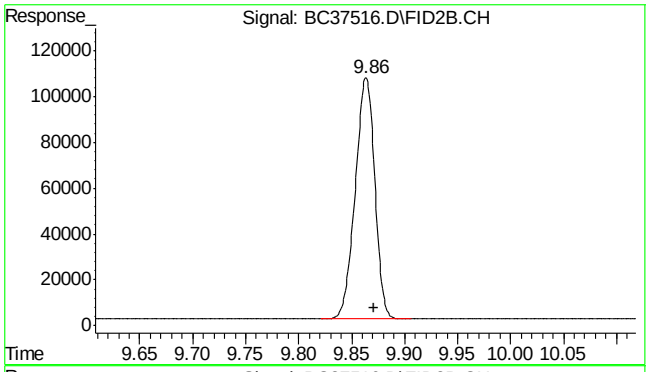
#28 c-12

R.T.: 7.683 min
Delta R.T.: -0.007 min
Response: 145074
Conc: 14.19 ppm



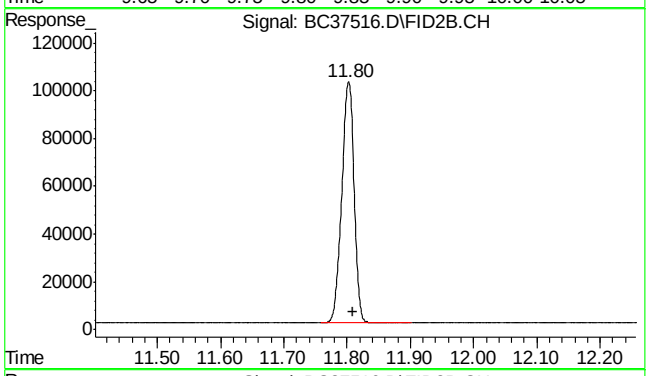
#29 2-methylnaphthalene #2

R.T.: 8.767 min
Delta R.T.: -0.008 min
Response: 139789
Conc: 13.70 ppm



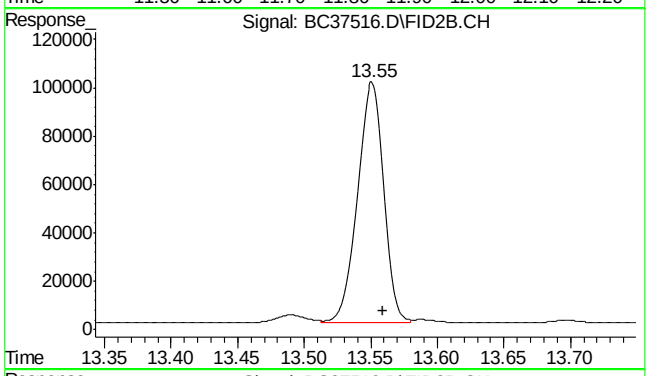
#30 c-14

R.T.: 9.863 min
Delta R.T.: -0.007 min
Response: 135162
Conc: 14.22 ppm



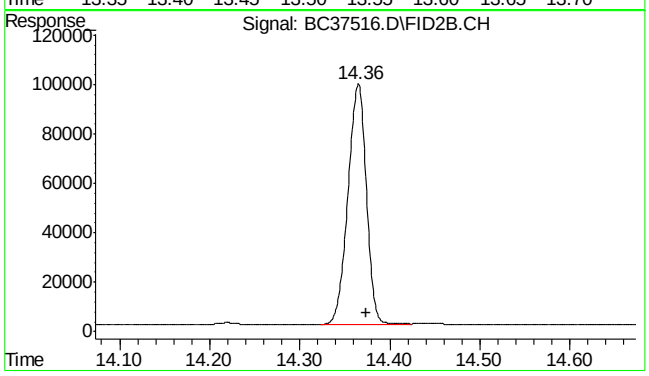
#31 c-16

R.T.: 11.802 min
Delta R.T.: -0.008 min
Response: 136689
Conc: 14.26 ppm



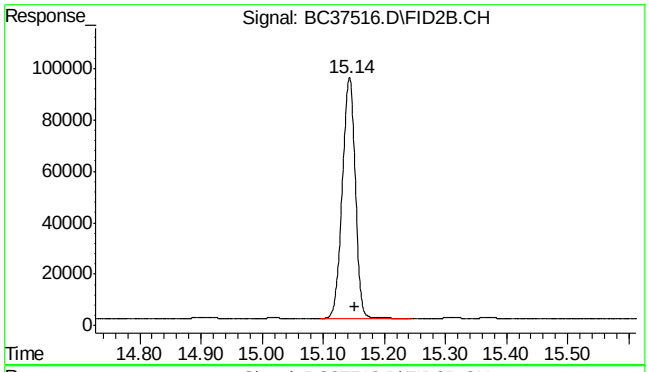
#32 c-18

R.T.: 13.551 min
Delta R.T.: -0.008 min
Response: 138544
Conc: 13.81 ppm m



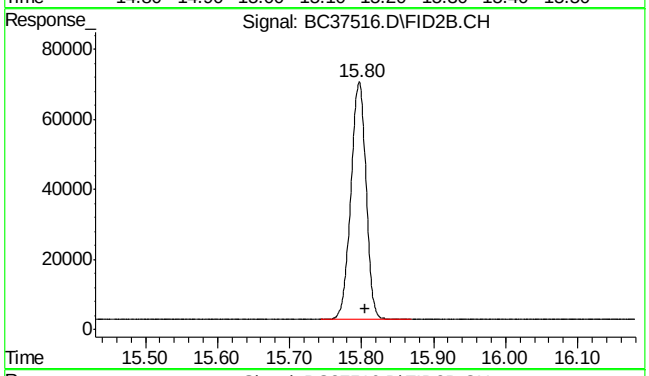
#33 c-19

R.T.: 14.365 min
Delta R.T.: -0.008 min
Response: 138515
Conc: 14.06 ppm



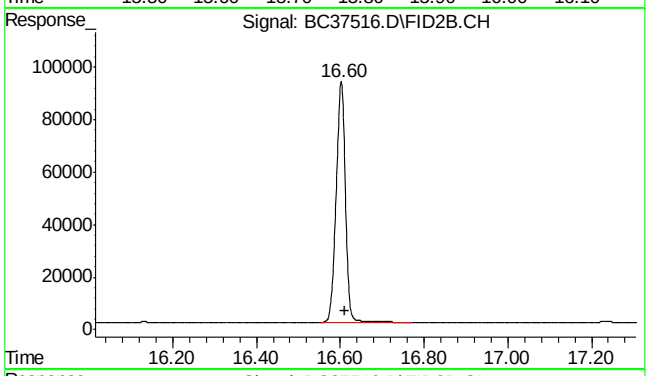
#34 c-20

R.T.: 15.142 min
Delta R.T.: -0.010 min
Response: 137971
Conc: 14.16 ppm



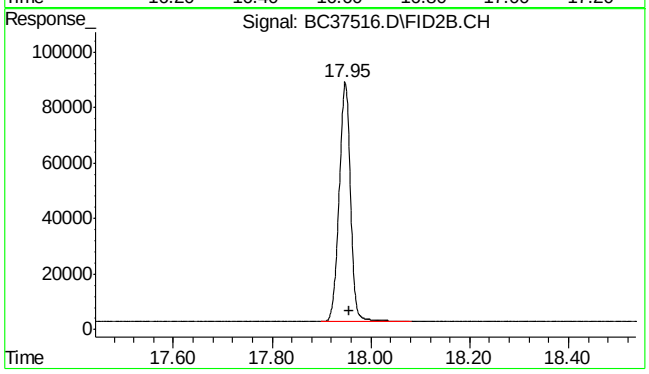
#35 1-chlorooctadecane

R.T.: 15.797 min
Delta R.T.: -0.008 min
Response: 99422
Conc: 13.30 ppm



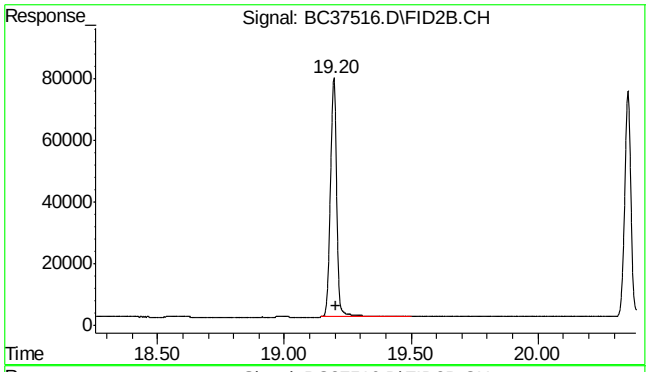
#36 c-22

R.T.: 16.602 min
Delta R.T.: -0.009 min
Response: 139353
Conc: 13.74 ppm



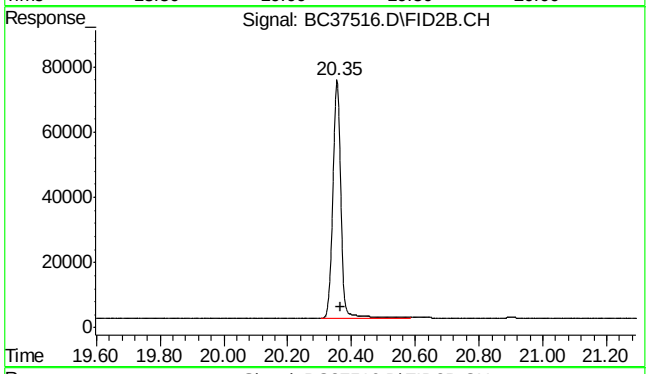
#37 c-24

R.T.: 17.947 min
Delta R.T.: -0.010 min
Response: 138192
Conc: 13.29 ppm



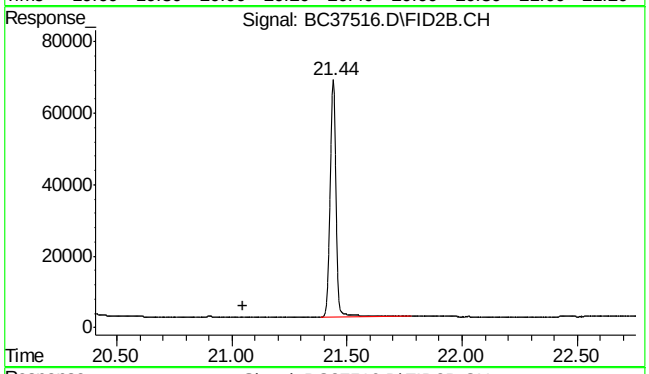
#38 c-26

R.T.: 19.196 min
Delta R.T.: -0.007 min
Response: 135054
Conc: 13.35 ppm



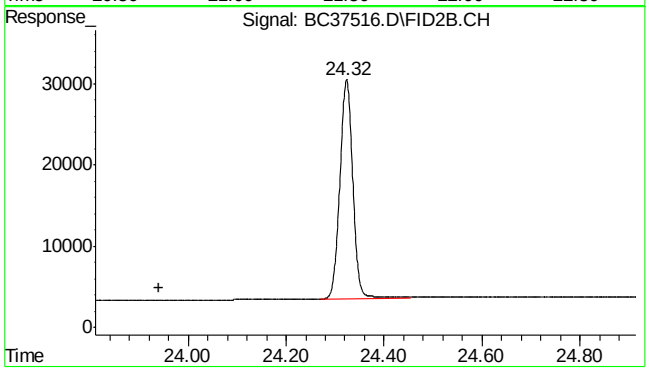
#39 c-28

R.T.: 20.354 min
Delta R.T.: -0.010 min
Response: 128305
Conc: 13.19 ppm



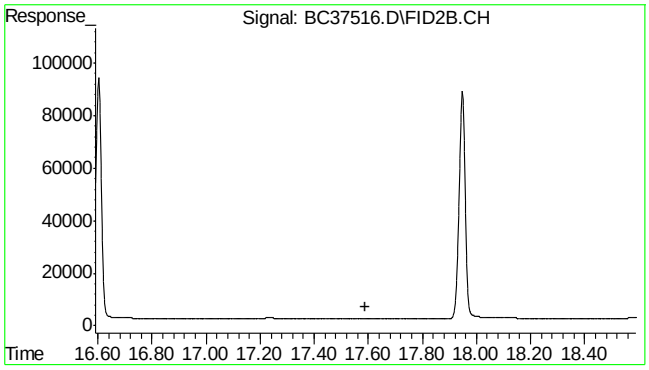
#40 c-30

R.T.: 21.050 min
Delta R.T.: 0.000 min
Response: 118252
Conc: 13.54 ppm m



#41 c-36

R.T.: 23.940 min
Delta R.T.: 0.000 min
Response: 49297
Conc: 21.31 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.4 10

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Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/15/10 13:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37517.D\FID1A.CH Vial: 85
Signal #2 : C:\MSDCHEM\1\DATA\BC37517.D\FID2B.CH
Acq On : 3-8-10 09:21:17 PM Operator: KimD
Sample : ic1911-5 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:51:06 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:48:39 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
4) s	2-fluorobiphenyl	9.37	32741	5.758	ppm	
Spiked Amount	20.000 Range	40 - 140	Recovery =	28.79%#		
6) s	2-bromonaphthalene	10.46	21060	5.527	ppm	
Spiked Amount	20.000 Range	40 - 140	Recovery =	27.63%#		
11) s	o-terphenyl	14.22	40379	6.057	ppm	
Spiked Amount	20.000 Range	40 - 140	Recovery =	30.29%#		
22) s	bht	0.00	0	N.D.	ppm	d
23) s	BHT	0.00	0	N.D.	ppm	d
35) s	1-chlorooctadecane	15.79	18487	1.064	ppm	
Spiked Amount	20.000 Range	40 - 140	Recovery =	5.32%#		
42) s	BHT	0.00	0	N.D.	ppm	
	Target Compounds					
1) h	c11-c22 aromatics (Unadj.)	0.00	0	N.D.	ppm	
2)	naphthalene	7.29	37606	5.896	ppm	
3)	2-methylnaphthalene	8.57	36215	5.832	ppm	
5)	acenaphthylene	10.21	37783	5.954	ppm	
7)	acenaphthene	10.57	40428	6.121	ppm	
8)	fluorene	11.52	34014	5.526	ppm	
9)	phenanthrene	13.28	35143	5.522	ppm	
10)	anthracene	13.36f	35191	5.747	ppm	
12)	fluoranthene	15.52	36399	5.784	ppm	
13)	pyrene	15.91f	37371	5.773	ppm	
14)	benzo(a)anthracene	18.23	25968	6.601	ppm	
15)	chrysene	18.30f	32911	5.478	ppm	
16)	benzo(b)fluoranthene	20.15f	29538	5.901	ppm	m
17)	benzo(k)fluoranthene	20.20f	31745	5.616	ppm	
18)	benzo(a)pyrene	20.66f	29935	N.D.	ppm	
19)	indeno(1,2,3-cd)pyrene	22.34f	24971	BelowCal	ppm	m
20)	dibenzo(ah)anthracene	22.41f	22541	3.178	ppm	
21)	benzo(ghi)perylene	22.68f	28609	N.D.	ppm	
25) h	c-9	3.30	32392	0.486	ppm	
26) h	c-10	4.69	36243	1.127	ppm	
27)	naphthalene #2	7.50	36607	0.908	ppm	
28)	c-12	7.68	34369	0.958	ppm	m
29)	2-methylnaphthalene #2	8.76	32976	0.701	ppm	
30)	c-14	9.86	31922	0.855	ppm	
31)	c-16	11.80	32388	0.716	ppm	
32)	c-18	13.55	32877	0.462	ppm	m
33)	c-19	14.36	32487	0.435	ppm	
34)	c-20	15.14	32114	0.370	ppm	
36)	c-22	16.60	31663	0.050	ppm	
37)	c-24	17.94	29766	N.D.	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37517.D EPH030810.M Wed Mar 17 13:35:18 2010 RPGEN1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37517.D\FID1A.CH Vial: 85
Signal #2 : C:\MSDCHEM\1\DATA\BC37517.D\FID2B.CH
Acq On : 3-8-10 09:21:17 PM Operator: KimD
Sample : ic1911-5 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:51:06 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:48:39 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	R.T.	Response	Conc	Units	
38)		c-26	19.19	25836	N.D.	ppm	
39)		c-28	20.35	20137	N.D.	ppm	m
40)	h	c-30	21.05	13463	0.773	ppm	
41)	h	c-36	23.94	2936	12.109	ppm	

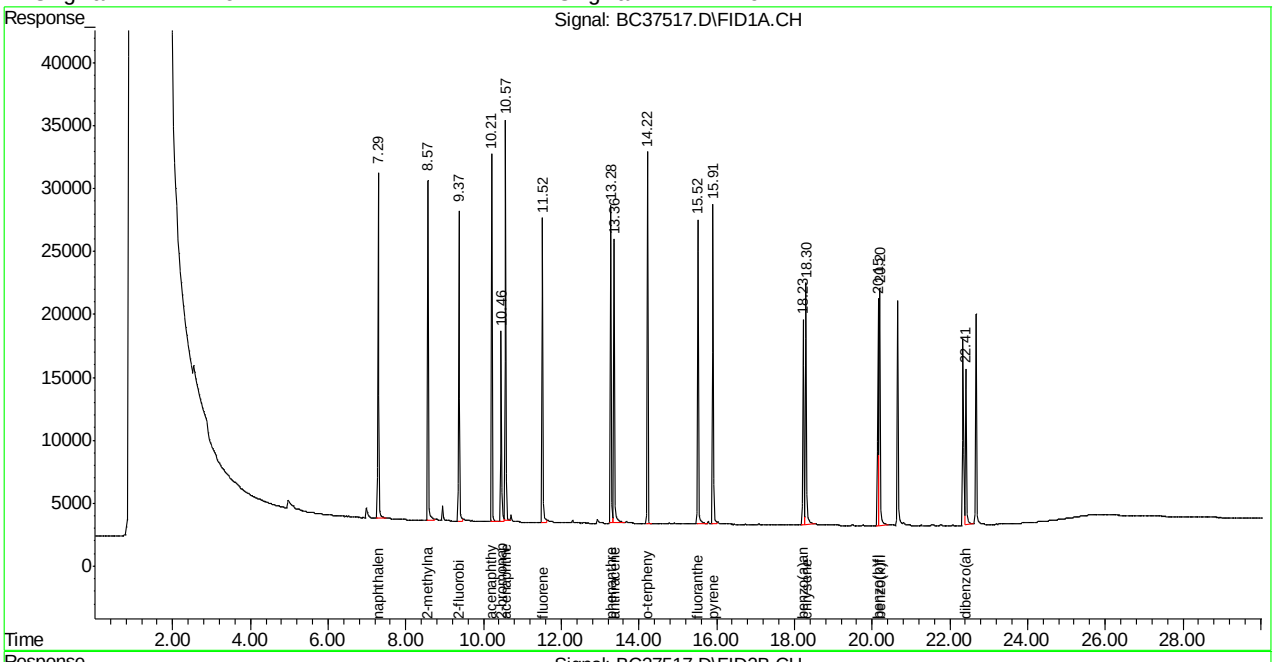
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37517.D EPH030810.M Wed Mar 17 13:35:19 2010 RPGEN1

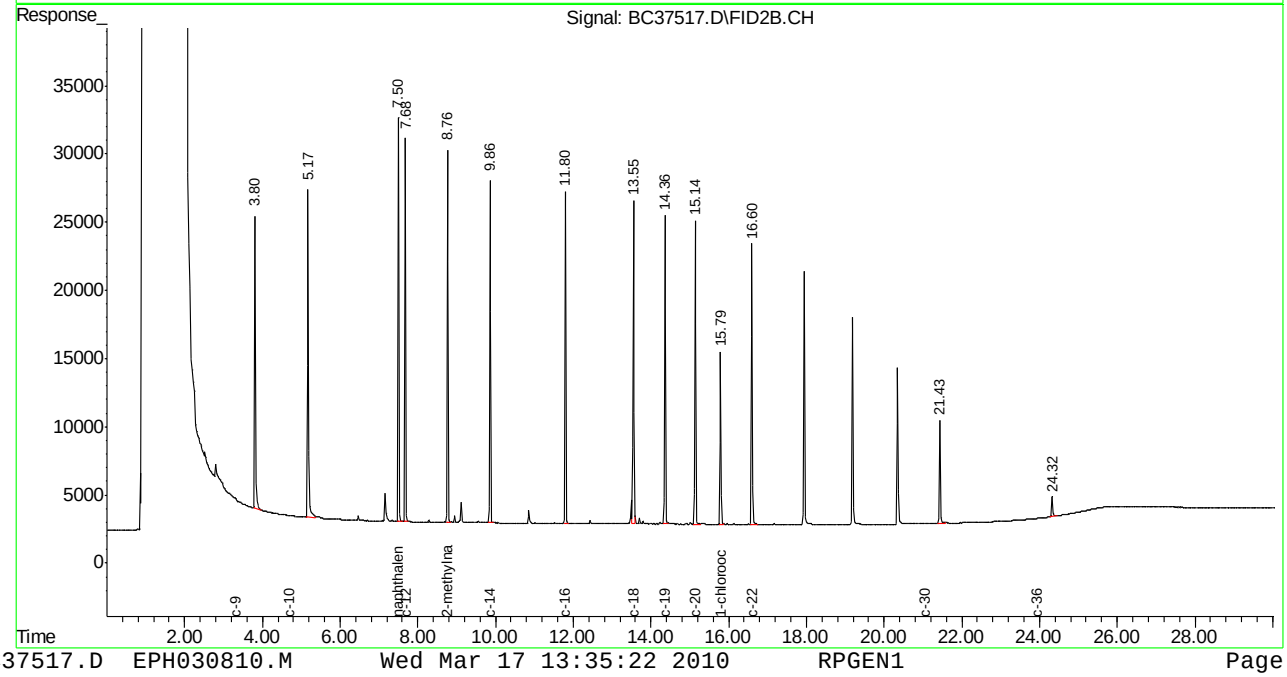
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37517.D\FID1A.CH Vial: 85
Signal #2 : C:\MSDCHEM\1\DATA\BC37517.D\FID2B.CH
Acq On : 3-8-10 09:21:17 PM Operator: KimD
Sample : ic1911-5 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 10:40 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:48:39 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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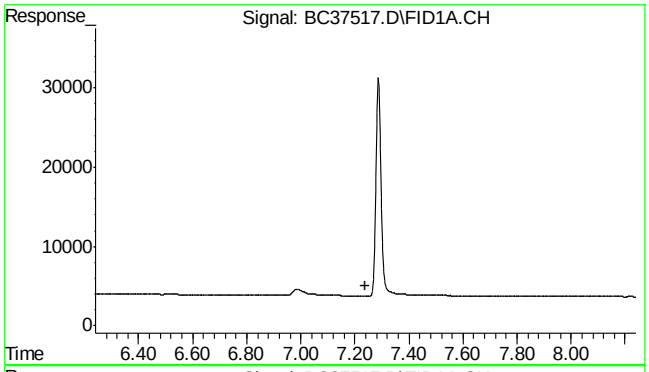
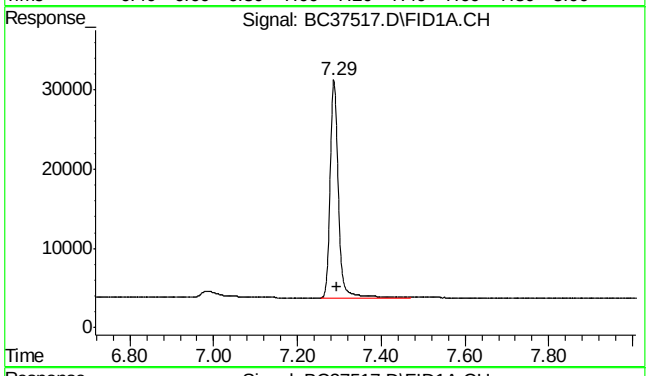


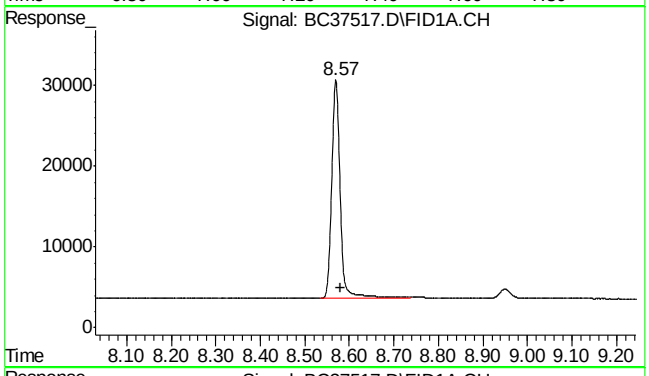
#1 c11-c22 aromatics (Unadj.)

R.T.: 0.000 min
Exp R.T. : 7.240 min
Response: 0
Conc: N.D.



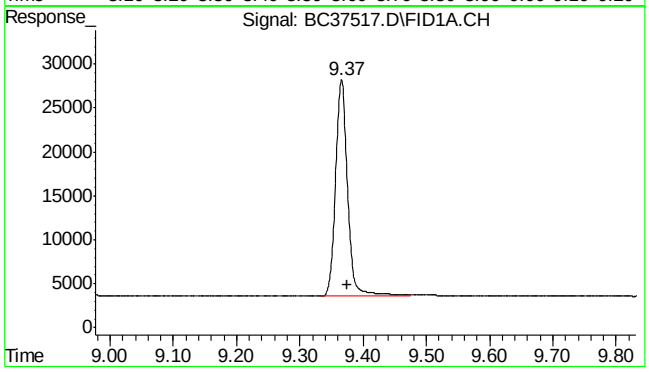
#2 naphthalene

R.T.: 7.286 min
Delta R.T.: -0.009 min
Response: 37606
Conc: 5.90 ppm



#3 2-methylnaphthalene

R.T.: 8.569 min
Delta R.T.: -0.010 min
Response: 36215
Conc: 5.83 ppm



#4 2-fluorobiphenyl

R.T.: 9.365 min
Delta R.T.: -0.009 min
Response: 32741
Conc: 5.76 ppm

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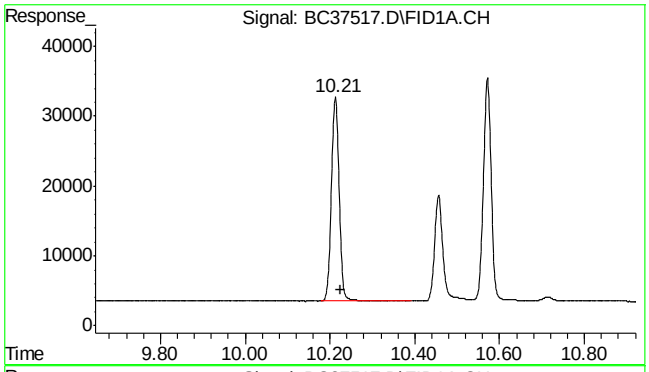
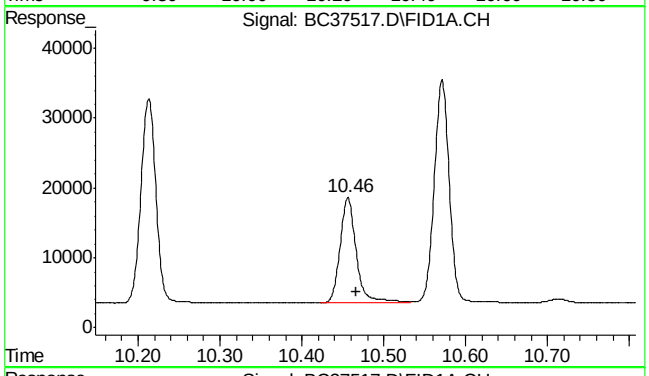


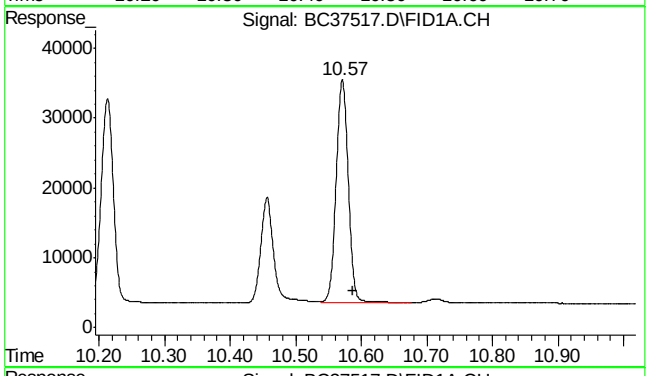
#5 acenaphthylene

R.T.: 10.213 min
Delta R.T.: -0.013 min
Response: 37783
Conc: 5.95 ppm



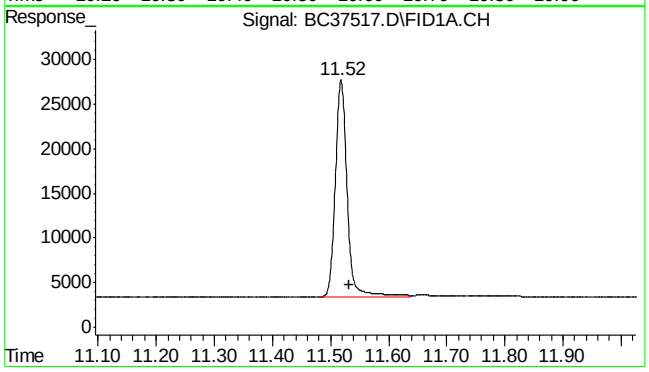
#6 2-bromonaphthalene

R.T.: 10.456 min
Delta R.T.: -0.010 min
Response: 21060
Conc: 5.53 ppm



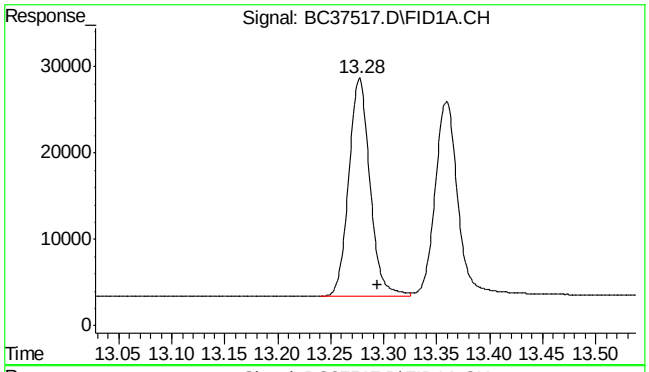
#7 acenaphthene

R.T.: 10.571 min
Delta R.T.: -0.015 min
Response: 40428
Conc: 6.12 ppm



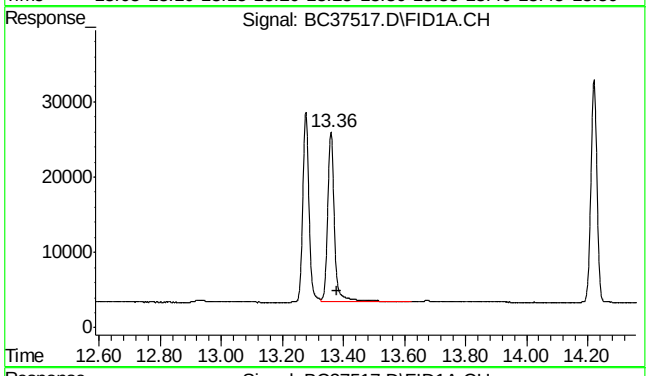
#8 fluorene

R.T.: 11.518 min
Delta R.T.: -0.014 min
Response: 34014
Conc: 5.53 ppm



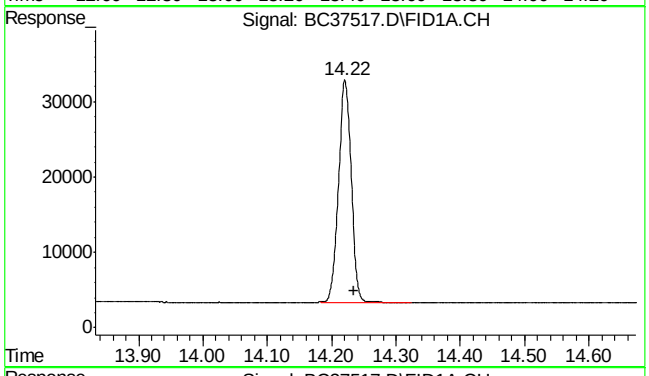
#9 phenanthrene

R.T.: 13.277 min
Delta R.T.: -0.017 min
Response: 35143
Conc: 5.52 ppm



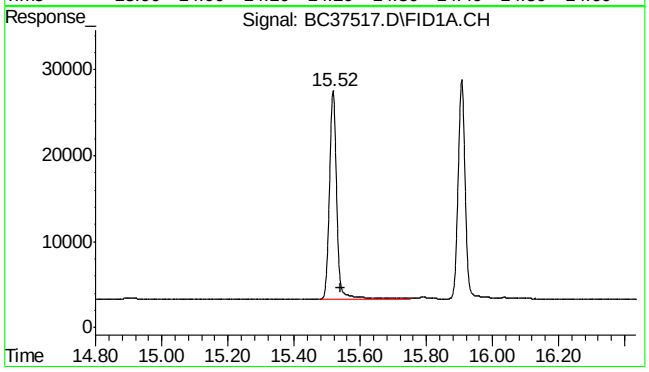
#10 anthracene

R.T.: 13.360 min
Delta R.T.: -0.020 min
Response: 35191
Conc: 5.75 ppm



#11 o-terphenyl

R.T.: 14.220 min
Delta R.T.: -0.014 min
Response: 40379
Conc: 6.06 ppm



#12 fluoranthene

R.T.: 15.518 min
Delta R.T.: -0.021 min
Response: 36399
Conc: 5.78 ppm

10.5.5 10

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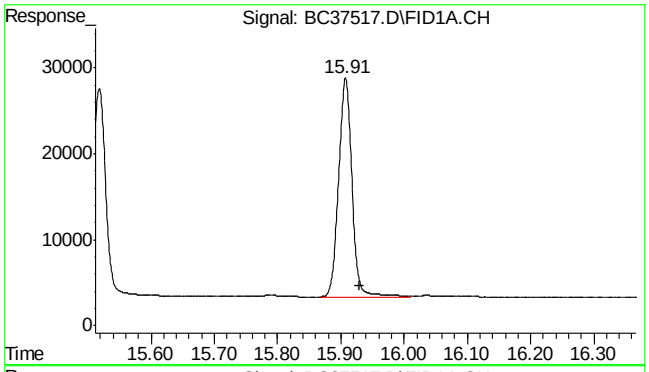
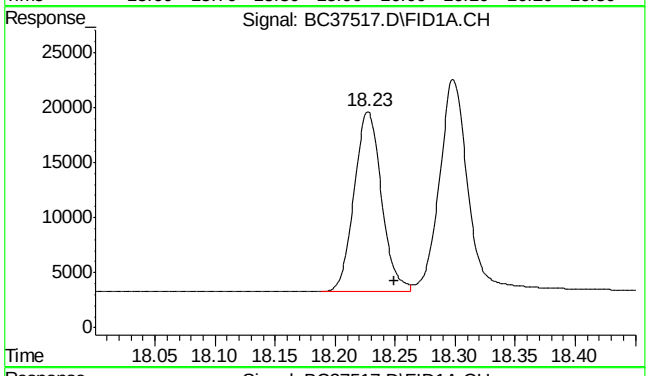


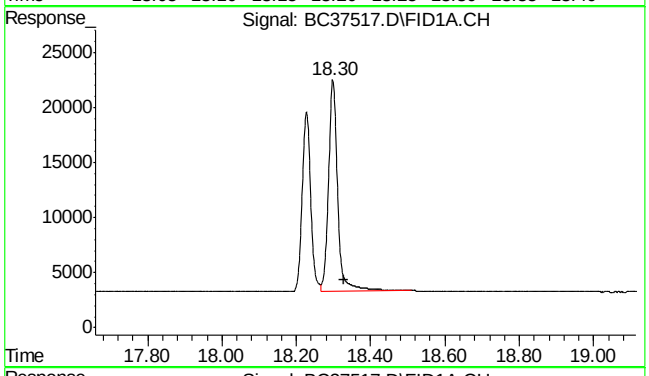
#13 pyrene

R.T.: 15.907 min
Delta R.T.: -0.023 min
Response: 37371
Conc: 5.77 ppm



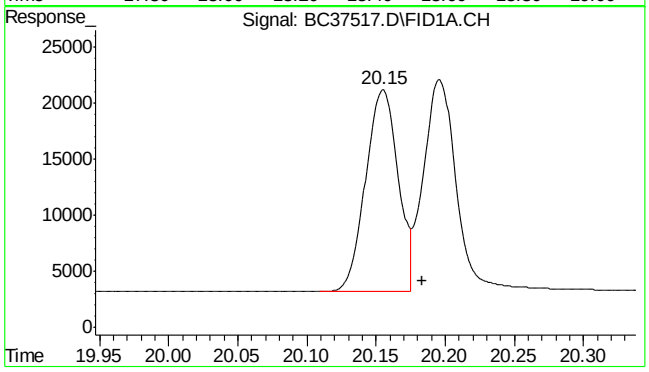
#14 benzo(a)anthracene

R.T.: 18.227 min
Delta R.T.: -0.022 min
Response: 25968
Conc: 6.60 ppm



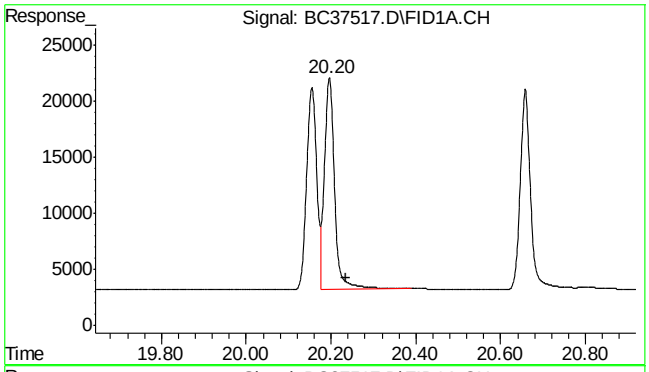
#15 chrysene

R.T.: 18.297 min
Delta R.T.: -0.031 min
Response: 32911
Conc: 5.48 ppm



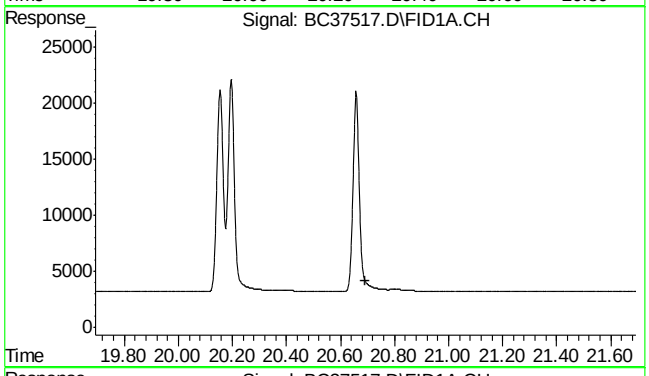
#16 benzo(b)fluoranthene

R.T.: 20.155 min
Delta R.T.: -0.029 min
Response: 29538
Conc: 5.90 ppm m



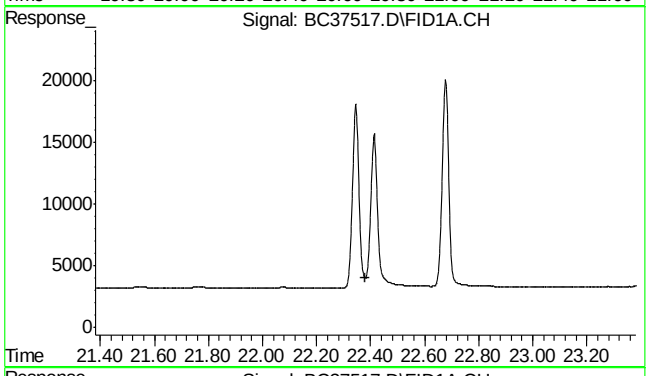
#17 benzo(k)fluoranthene

R.T.: 20.196 min
Delta R.T.: -0.039 min
Response: 31745
Conc: 5.62 ppm



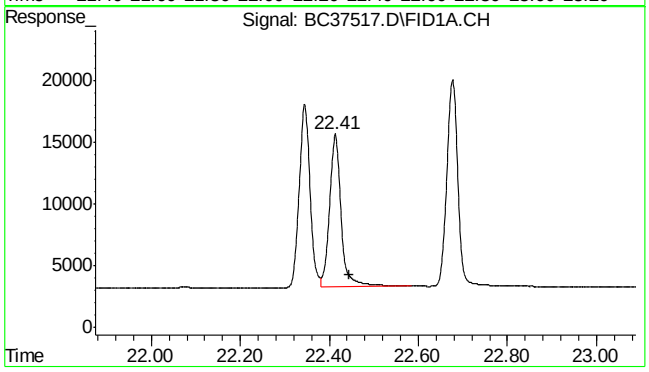
#18 benzo(a)pyrene

R.T.: 20.658 min
Delta R.T.: -0.035 min
Response: 29935
Conc: N.D.



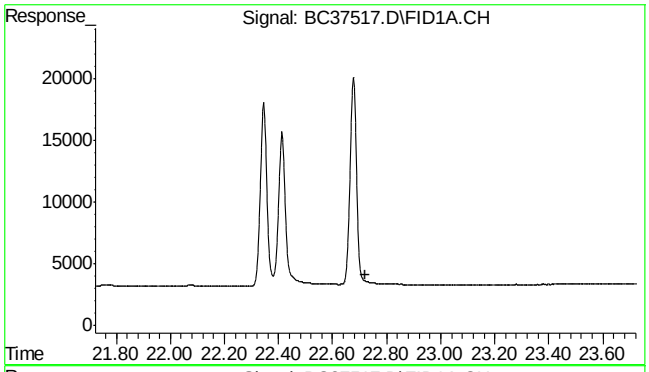
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.344 min
Delta R.T.: -0.038 min
Response: 24971
Conc: N.D.



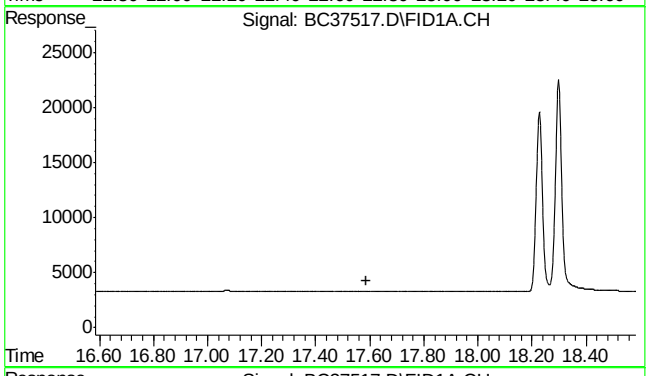
#20 dibenzo(ah)anthracene

R.T.: 22.413 min
Delta R.T.: -0.031 min
Response: 22541
Conc: 3.18 ppm



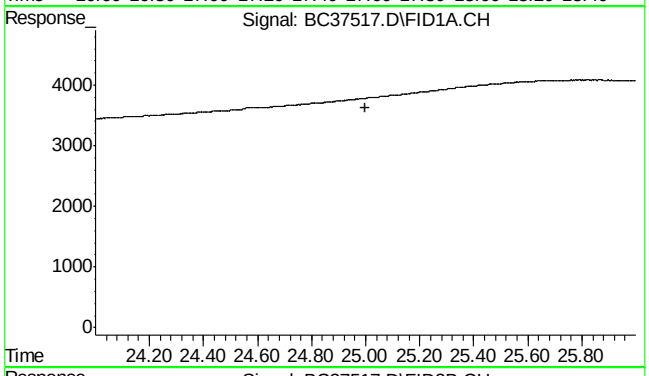
#21 benzo(ghi)perylene

R.T.: 22.677 min
Delta R.T.: -0.045 min
Response: 28609
Conc: N.D.



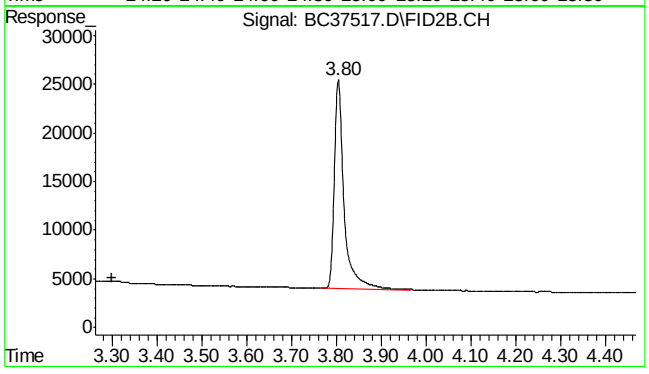
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



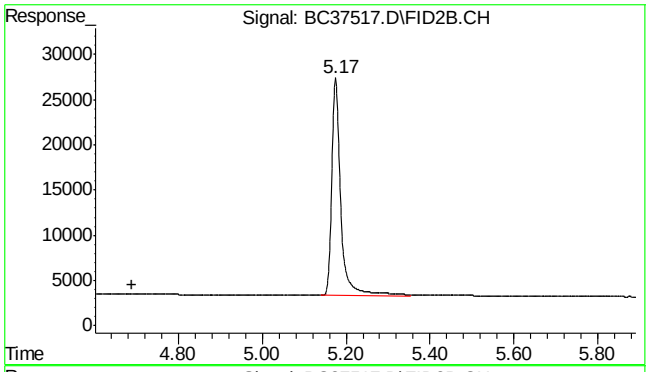
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



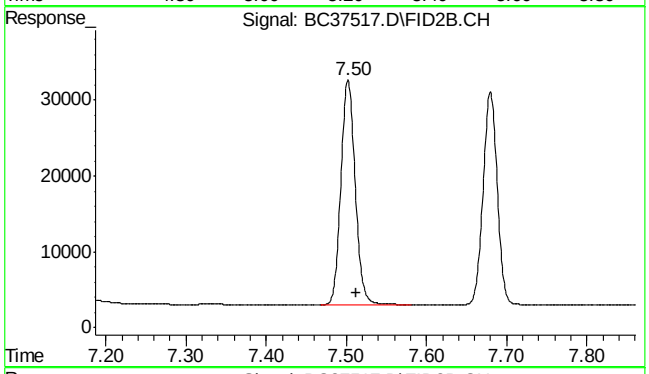
#25 c-9

R.T.: 3.300 min
Delta R.T.: 0.000 min
Response: 32392
Conc: 0.49 ppm m



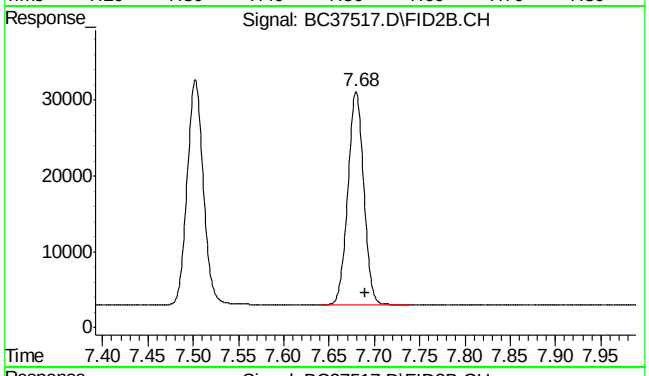
#26 c-10

R.T.: 4.690 min
Delta R.T.: 0.000 min
Response: 36243
Conc: 1.13 ppm m



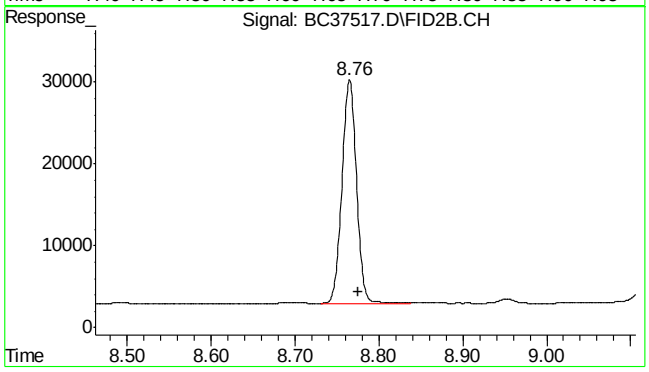
#27 naphthalene #2

R.T.: 7.502 min
Delta R.T.: -0.010 min
Response: 36607
Conc: 0.91 ppm



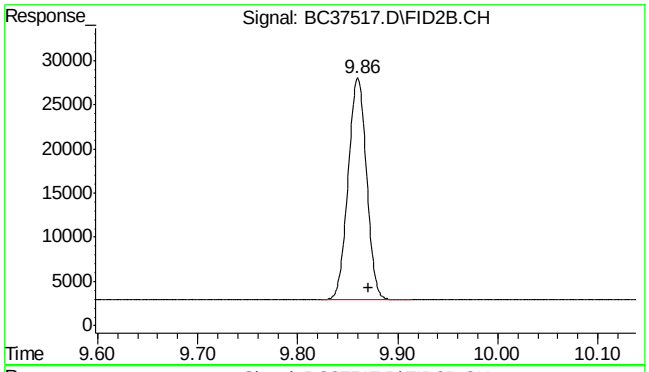
#28 c-12

R.T.: 7.680 min
Delta R.T.: -0.010 min
Response: 34369
Conc: 0.96 ppm m



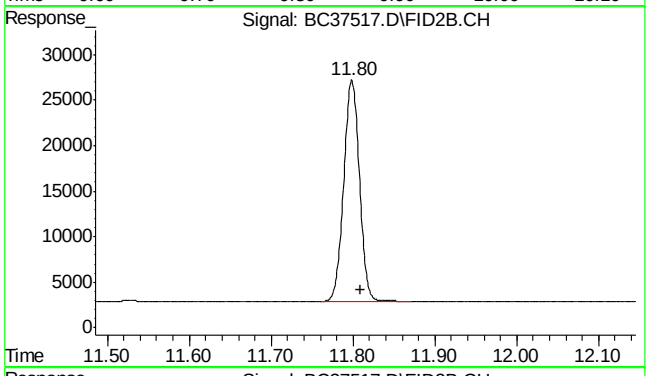
#29 2-methylnaphthalene #2

R.T.: 8.765 min
Delta R.T.: -0.011 min
Response: 32976
Conc: 0.70 ppm



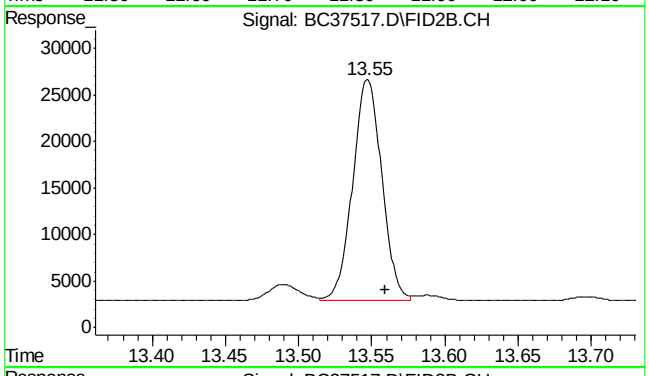
#30 c-14

R.T.: 9.860 min
Delta R.T.: -0.011 min
Response: 31922
Conc: 0.86 ppm



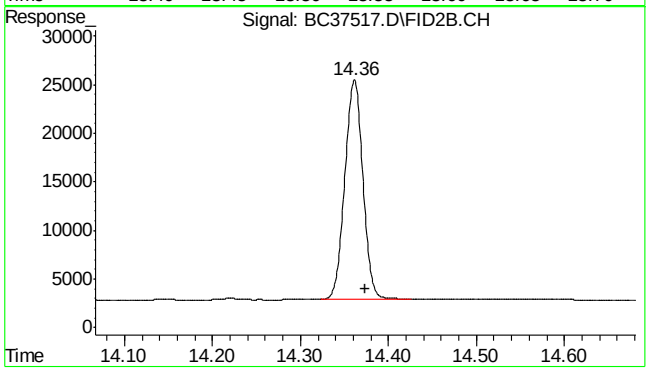
#31 c-16

R.T.: 11.798 min
Delta R.T.: -0.012 min
Response: 32388
Conc: 0.72 ppm



#32 c-18

R.T.: 13.547 min
Delta R.T.: -0.012 min
Response: 32877
Conc: 0.46 ppm m

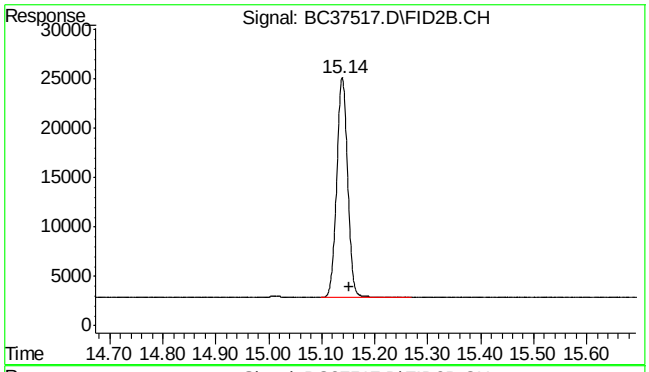


#33 c-19

R.T.: 14.361 min
Delta R.T.: -0.012 min
Response: 32487
Conc: 0.43 ppm

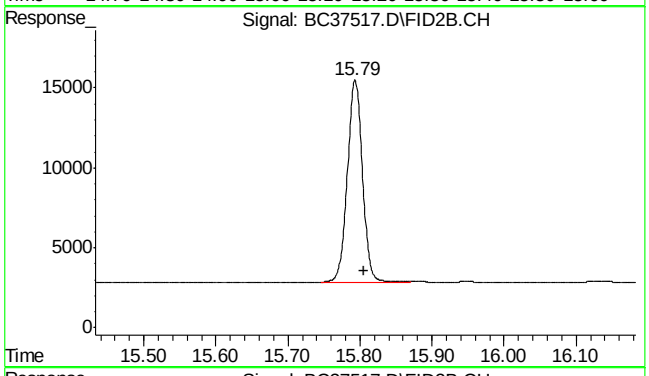
10.5.5 10

ACCUTEST Laboratories F71731



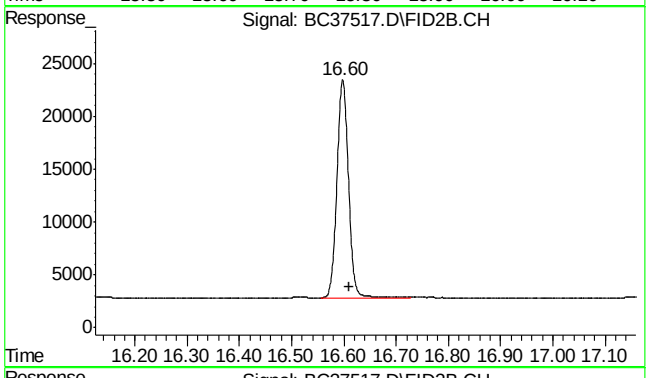
#34 c-20

R.T.: 15.139 min
Delta R.T.: -0.014 min
Response: 32114
Conc: 0.37 ppm



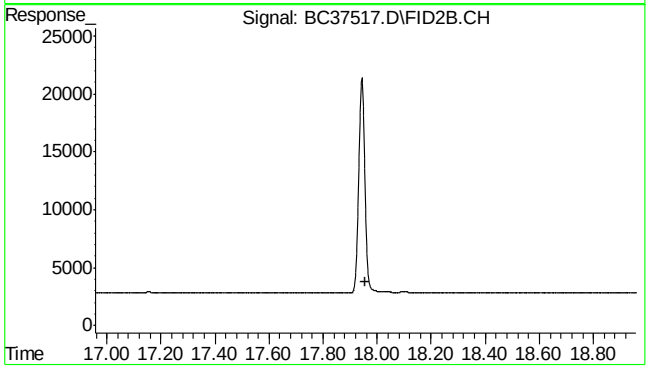
#35 1-chlorooctadecane

R.T.: 15.793 min
Delta R.T.: -0.012 min
Response: 18487
Conc: 1.06 ppm



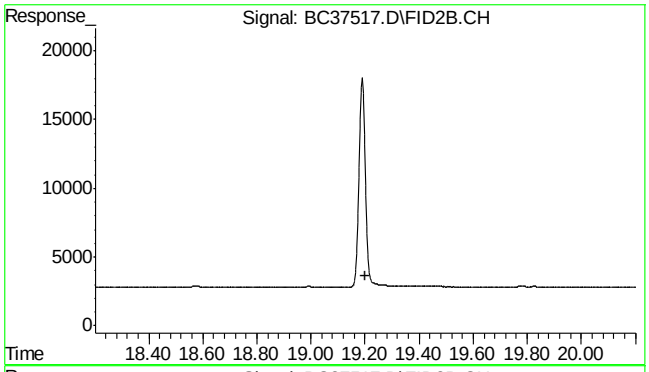
#36 c-22

R.T.: 16.597 min
Delta R.T.: -0.014 min
Response: 31663
Conc: 0.05 ppm



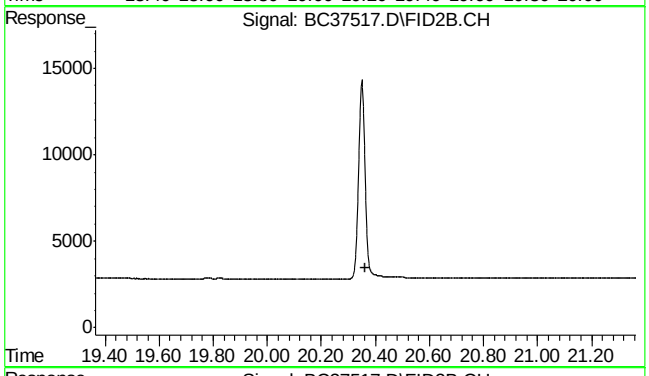
#37 c-24

R.T.: 17.944 min
Delta R.T.: -0.014 min
Response: 29766
Conc: N.D.



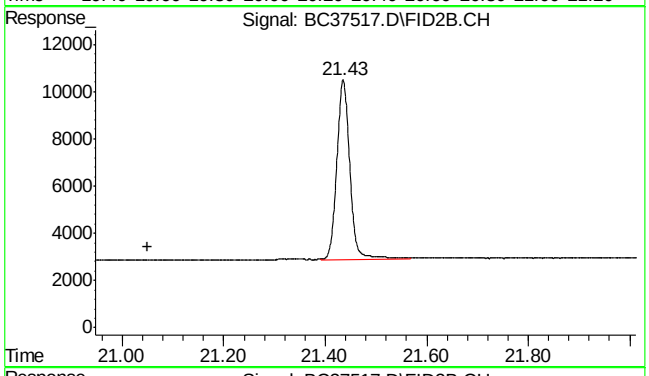
#38 c-26

R.T.: 19.190 min
Delta R.T.: -0.013 min
Response: 25836
Conc: N.D.



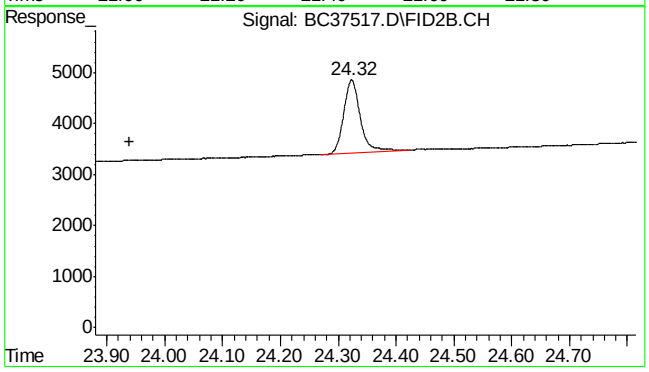
#39 c-28

R.T.: 20.350 min
Delta R.T.: -0.015 min
Response: 20137
Conc: N.D.



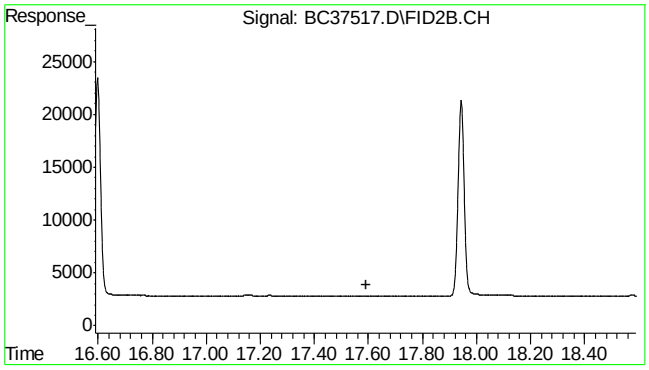
#40 c-30

R.T.: 21.050 min
Delta R.T.: 0.000 min
Response: 13463
Conc: 0.77 ppm m



#41 c-36

R.T.: 23.940 min
Delta R.T.: 0.000 min
Response: 2936
Conc: 12.11 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.5 10

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 03/15/10 13:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37518.D\FID1A.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BC37518.D\FID2B.CH
Acq On : 08 Mar 2010 10:00 pm Operator: KimD
Sample : ic1911-2 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:55:05 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:53:50 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s 2-fluorobiphenyl	9.37	10408	1.776	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery =	8.88%#			
6) s 2-bromonaphthalene	10.46	6203	1.594	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery =	7.97%#			
11) s o-terphenyl	14.22	13778	1.983	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery =	9.92%#			
22) s bht	0.00	0	N.D.	ppm	d
23) s BHT	0.00	0	N.D.	ppm	d
35) s 1-chlorooctadecane	15.79	5340	0.104	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery =	0.52%#			
42) s BHT	0.00	0	N.D.	ppm	
Target Compounds					
1) h c11-c22 aromatics (Unadj.)	0.00	0	N.D.	ppm	
2) naphthalene	7.29	12389	1.875	ppm	
3) 2-methylnaphthalene	8.57	11394	1.776	ppm	
5) acenaphthylene	10.21	12526	1.901	ppm	
7) acenaphthene	10.57	13921	2.017	ppm	
8) fluorene	11.52	10501	1.671	ppm	
9) phenanthrene	13.28	10578	1.628	ppm	
10) anthracene	13.36f	10259	1.627	ppm	
12) fluoranthene	15.52	11028	1.699	ppm	
13) pyrene	15.90f	11571	1.734	ppm	
14) benzo(a)anthracene	18.23	6475	2.413	ppm	
15) chrysene	18.30f	10857	1.773	ppm	m
16) benzo(b)fluoranthene	20.15f	7728	1.833	ppm	m
17) benzo(k)fluoranthene	20.19f	10048	1.735	ppm	m
18) benzo(a)pyrene	20.66f	7946	N.D.	ppm	
19) indeno(1,2,3-cd)pyrene	22.34f	5882	BelowCal	ppm	m
20) dibenzo(ah)anthracene	22.41	5670	0.863	ppm	m
21) benzo(ghi)perylene	22.67f	7858	N.D.	ppm	m
25) h c-9	3.30	12744	N.D.	ppm	
26) h c-10	4.69	15903	N.D.	ppm	
27) naphthalene #2	7.50	14347	N.D.	ppm	
28) c-12	7.68	13528	N.D.	ppm	
29) 2-methylnaphthalene #2	8.76	12905	N.D.	ppm	
30) c-14	9.86	12507	N.D.	ppm	
31) c-16	11.80	12770	N.D.	ppm	
32) c-18	13.55	12908	N.D.	ppm	m
33) c-19	14.36	12486	N.D.	ppm	
34) c-20	15.14	12165	N.D.	ppm	
36) c-22	16.60f	11257	N.D.	ppm	
37) c-24	17.94f	9156	N.D.	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37518.D EPH030810.M Wed Mar 17 13:35:42 2010 RPGEN1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37518.D\FID1A.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BC37518.D\FID2B.CH
Acq On : 08 Mar 2010 10:00 pm Operator: KimD
Sample : ic1911-2 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 08:55:05 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:53:50 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	R.T.	Response	Conc	Units
38)		c-26	19.19	6454	N.D.	ppm
39)		c-28	20.35f	4139	N.D.	ppm
40)	h	c-30	21.05	2554	0.809	ppm
41)	h	c-36	23.94	620	8.936	ppm

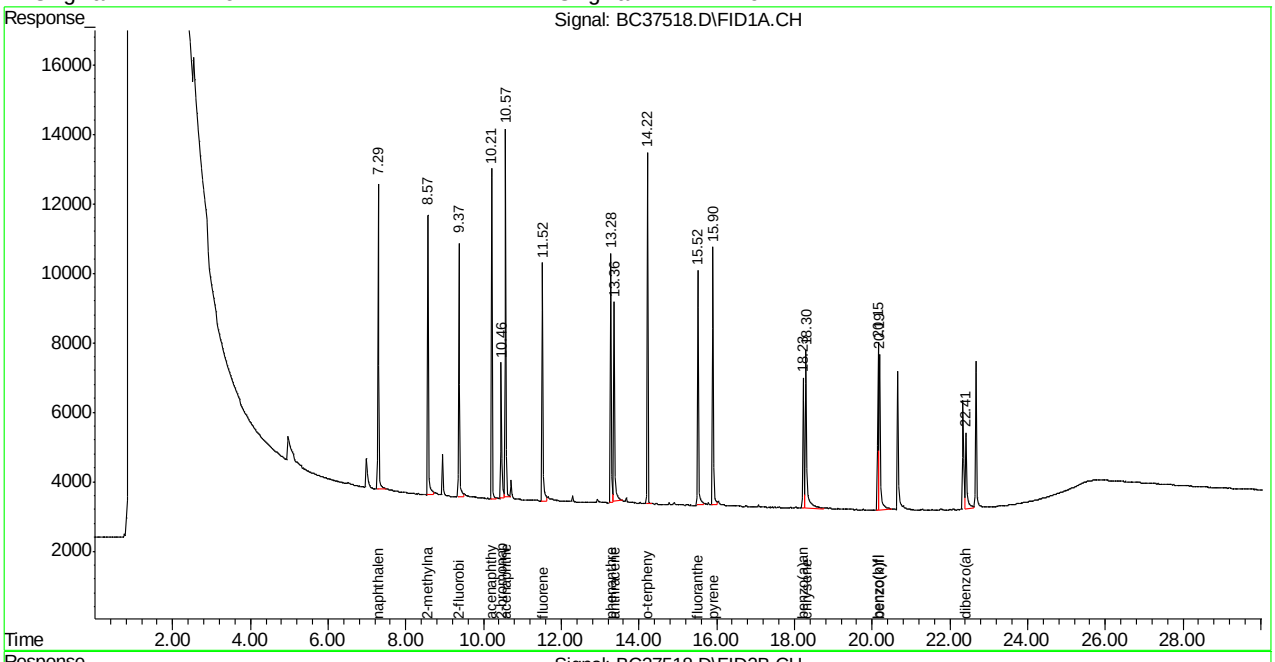
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37518.D EPH030810.M Wed Mar 17 13:35:43 2010 RPGEN1

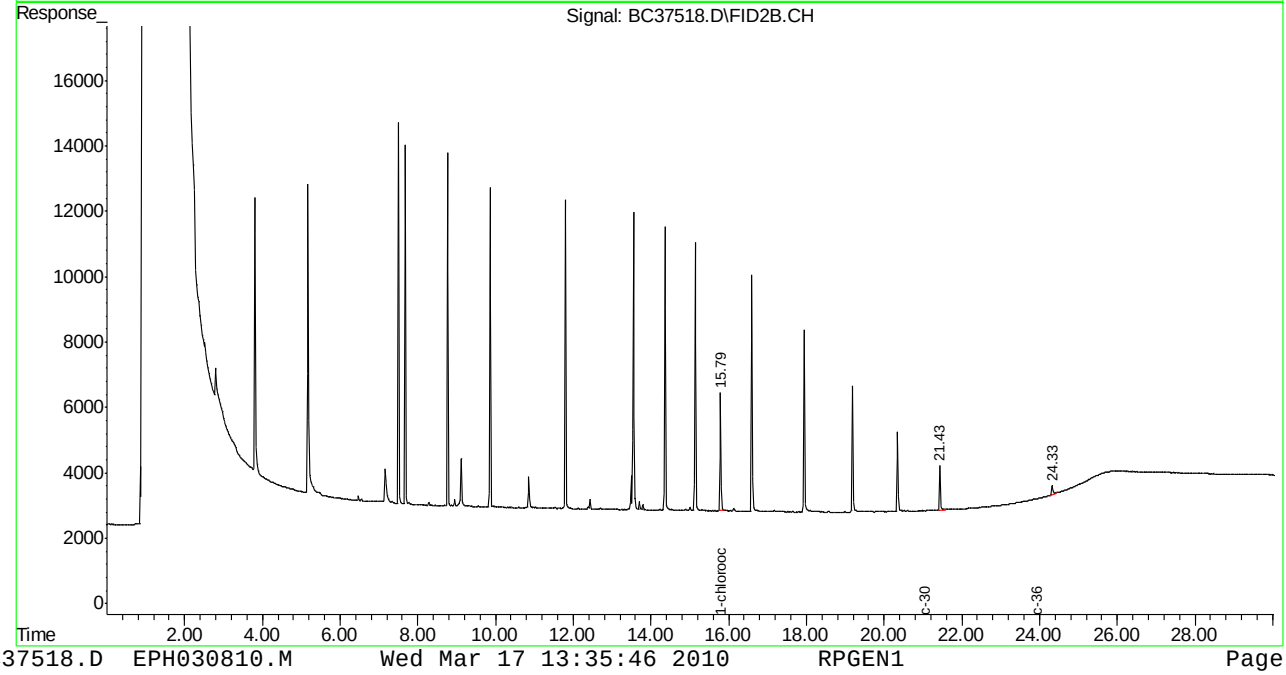
Quantitation Report (QT Reviewed)

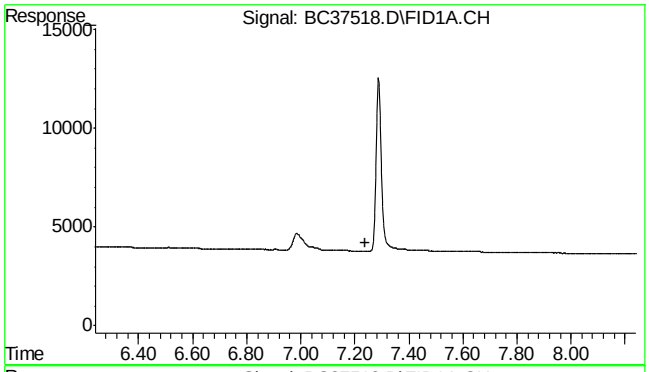
Signal #1 : C:\MSDCHEM\1\DATA\BC37518.D\FID1A.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BC37518.D\FID2B.CH
Acq On : 08 Mar 2010 10:00 pm Operator: KimD
Sample : ic1911-2 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 10:01 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 08:53:50 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

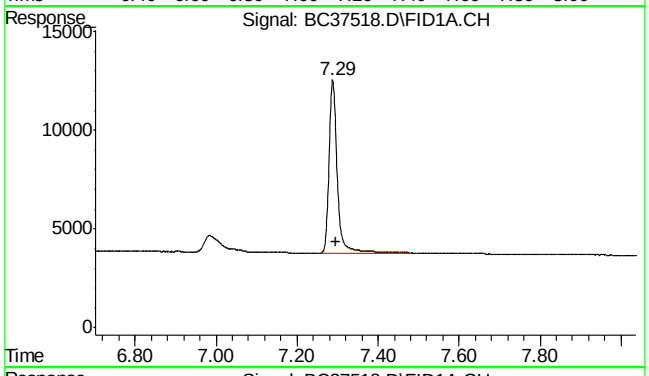






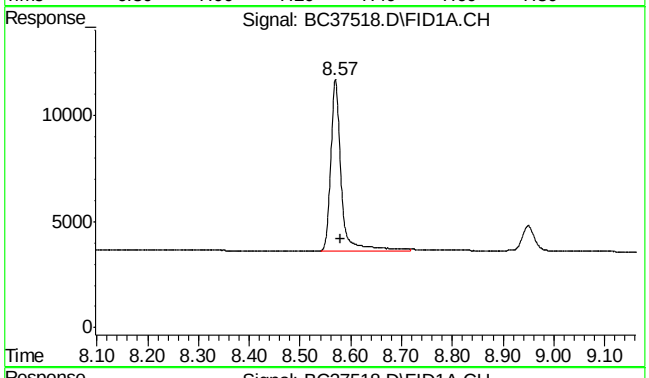
#1 c11-c22 aromatics (Unadj.)

R.T.: 0.000 min
Exp R.T. : 7.240 min
Response: 0
Conc: N.D.



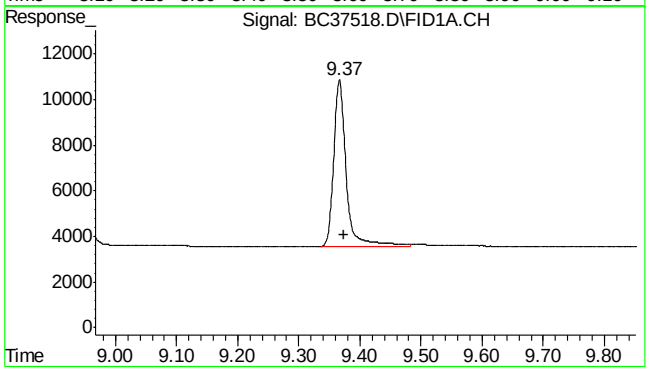
#2 naphthalene

R.T.: 7.287 min
Delta R.T.: -0.008 min
Response: 12389
Conc: 1.88 ppm



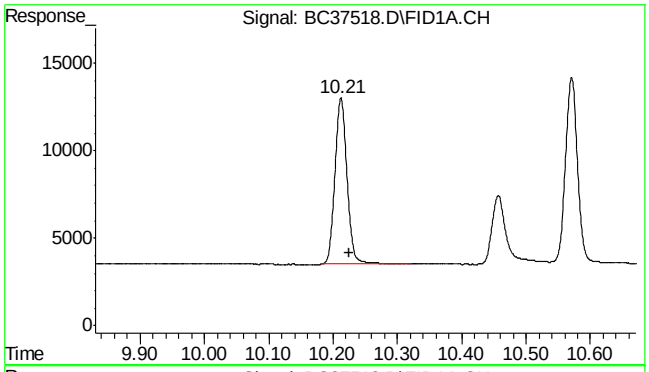
#3 2-methylnaphthalene

R.T.: 8.569 min
Delta R.T.: -0.010 min
Response: 11394
Conc: 1.78 ppm



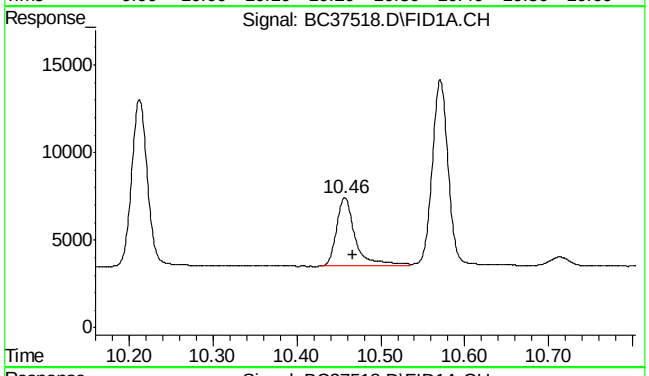
#4 2-fluorobiphenyl

R.T.: 9.367 min
Delta R.T.: -0.008 min
Response: 10408
Conc: 1.78 ppm



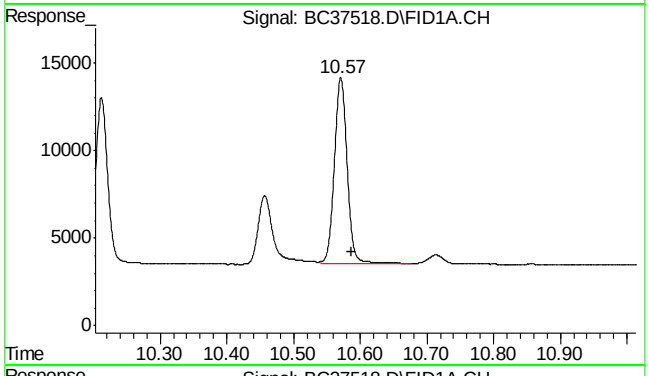
#5 acenaphthylene

R.T.: 10.212 min
Delta R.T.: -0.014 min
Response: 12526
Conc: 1.90 ppm



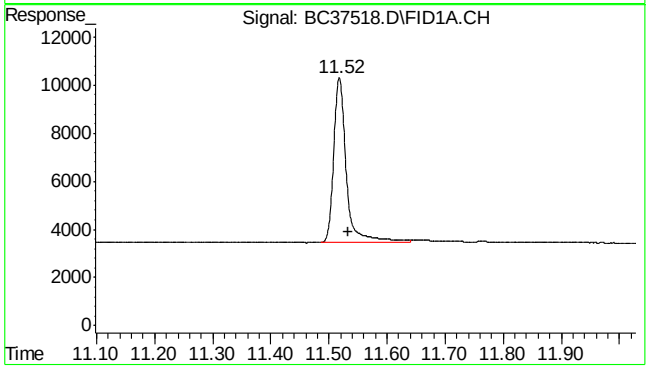
#6 2-bromonaphthalene

R.T.: 10.457 min
Delta R.T.: -0.010 min
Response: 6203
Conc: 1.59 ppm



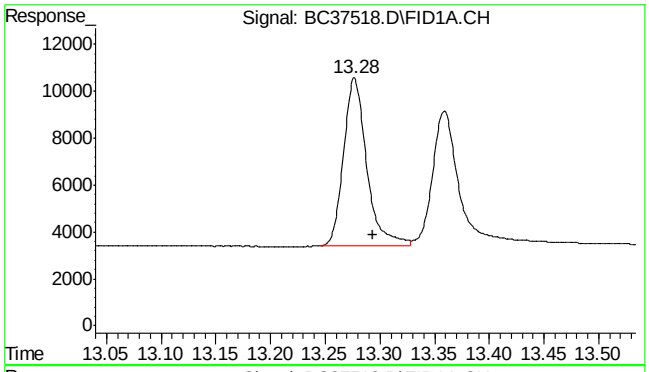
#7 acenaphthene

R.T.: 10.571 min
Delta R.T.: -0.016 min
Response: 13921
Conc: 2.02 ppm



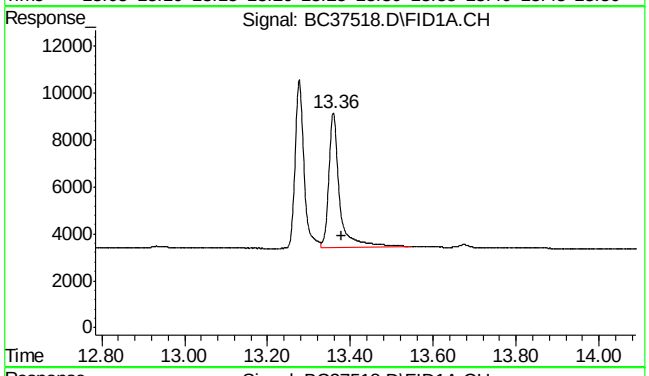
#8 fluorene

R.T.: 11.517 min
Delta R.T.: -0.015 min
Response: 10501
Conc: 1.67 ppm



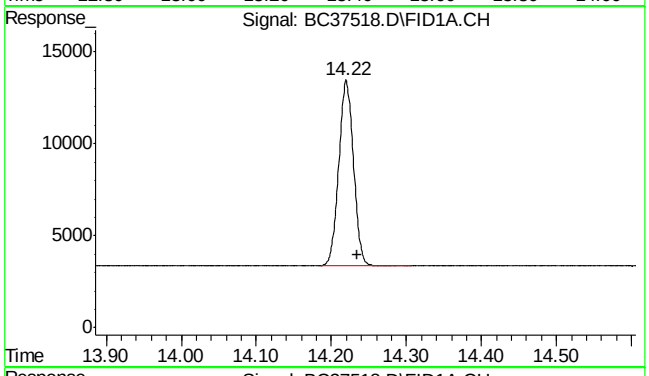
#9 phenanthrene

R.T.: 13.277 min
Delta R.T.: -0.018 min
Response: 10578
Conc: 1.63 ppm



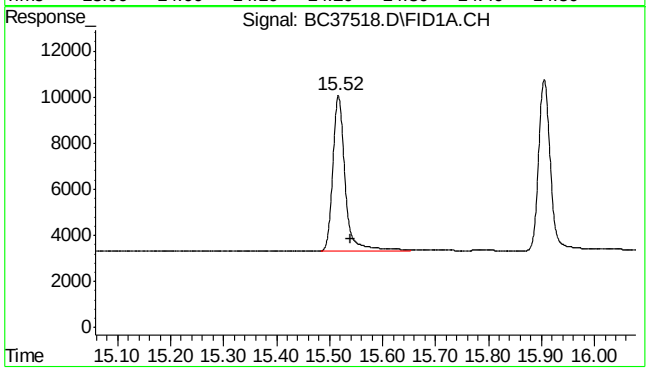
#10 anthracene

R.T.: 13.359 min
Delta R.T.: -0.020 min
Response: 10259
Conc: 1.63 ppm



#11 o-terphenyl

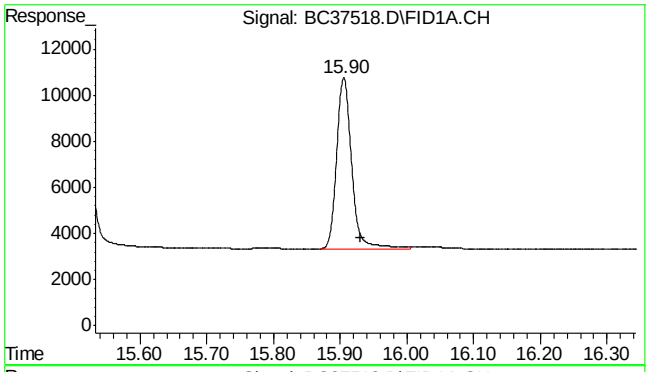
R.T.: 14.219 min
Delta R.T.: -0.015 min
Response: 13778
Conc: 1.98 ppm



#12 fluoranthene

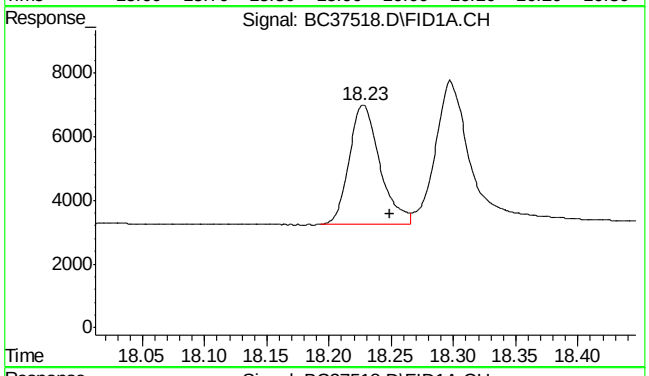
R.T.: 15.516 min
Delta R.T.: -0.023 min
Response: 11028
Conc: 1.70 ppm

ACCUTEST Laboratories F71731



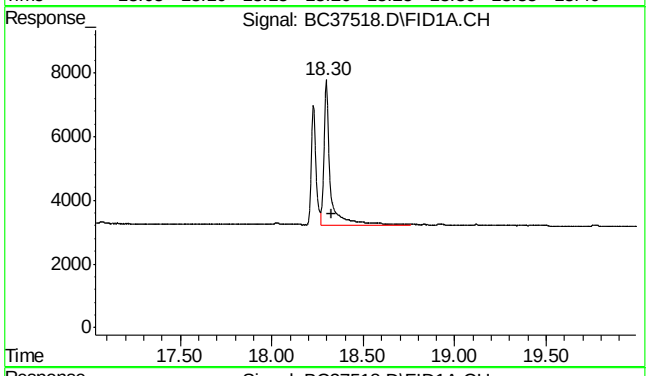
#13 pyrene

R.T.: 15.905 min
Delta R.T.: -0.025 min
Response: 11571
Conc: 1.73 ppm



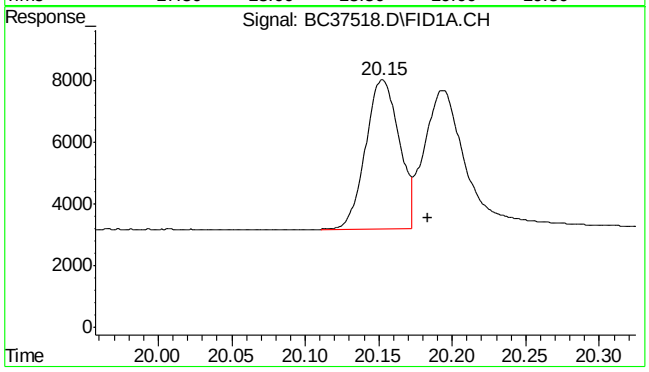
#14 benzo(a)anthracene

R.T.: 18.227 min
Delta R.T.: -0.022 min
Response: 6475
Conc: 2.41 ppm



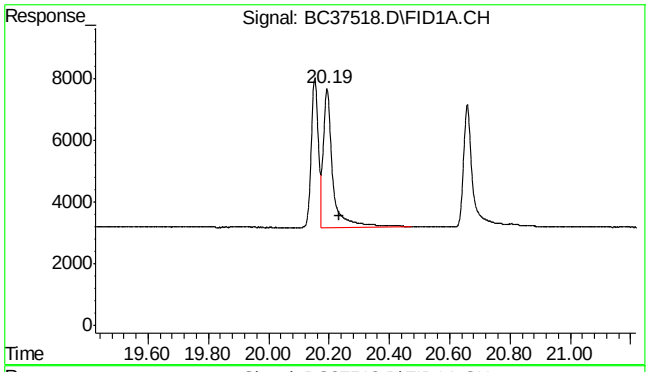
#15 chrysene

R.T.: 18.297 min
Delta R.T.: -0.032 min
Response: 10857
Conc: 1.77 ppm m



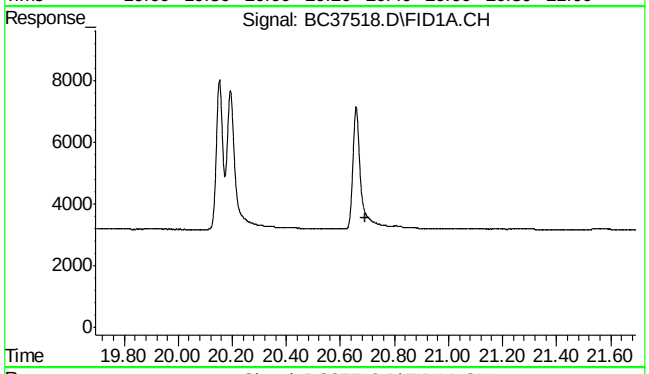
#16 benzo(b)fluoranthene

R.T.: 20.152 min
Delta R.T.: -0.031 min
Response: 7728
Conc: 1.83 ppm m



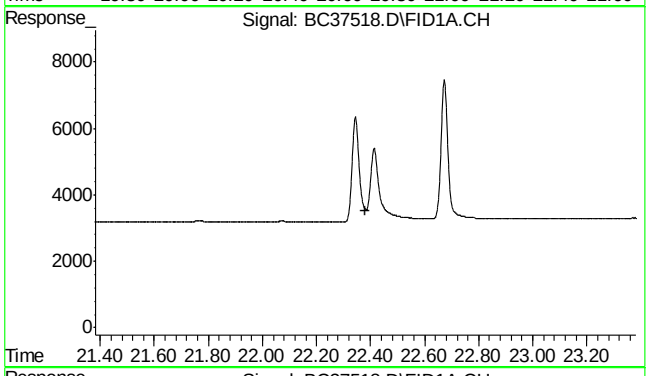
#17 benzo(k)fluoranthene

R.T.: 20.193 min
Delta R.T.: -0.042 min
Response: 10048
Conc: 1.73 ppm m



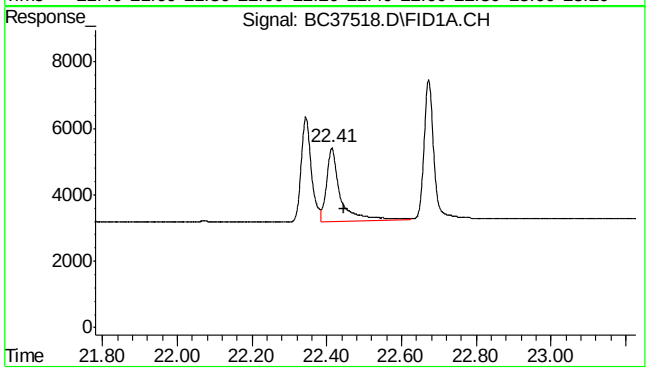
#18 benzo(a)pyrene

R.T.: 20.658 min
Delta R.T.: -0.035 min
Response: 7946
Conc: N.D.



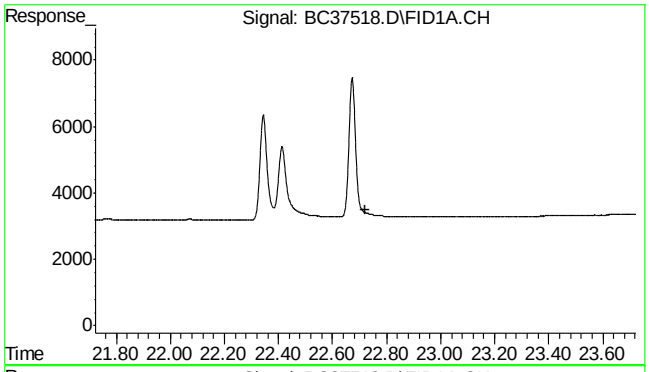
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.343 min
Delta R.T.: -0.038 min
Response: 5882
Conc: N.D.



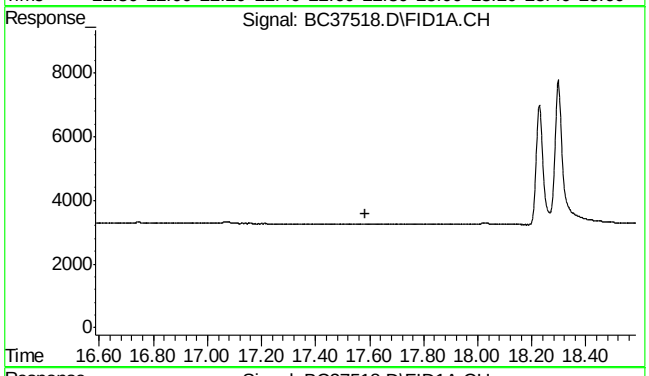
#20 dibenzo(ah)anthracene

R.T.: 22.413 min
Delta R.T.: -0.031 min
Response: 5670
Conc: 0.86 ppm m



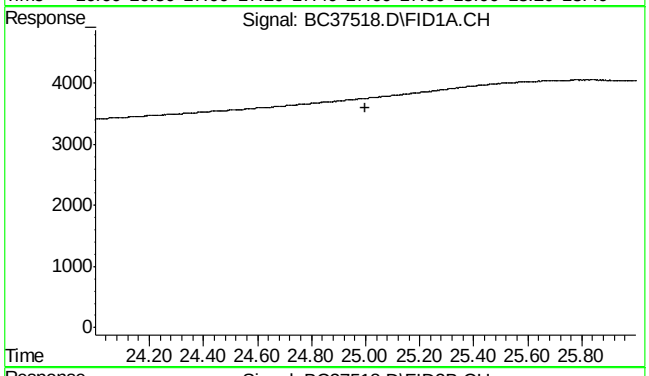
#21 benzo(ghi)perylene

R.T.: 22.672 min
Delta R.T.: -0.050 min
Response: 7858
Conc: N.D.



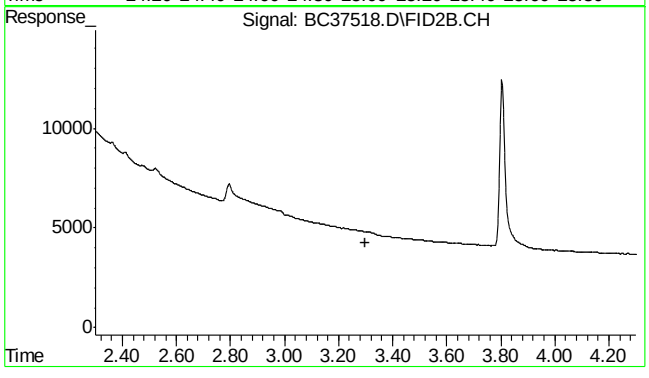
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



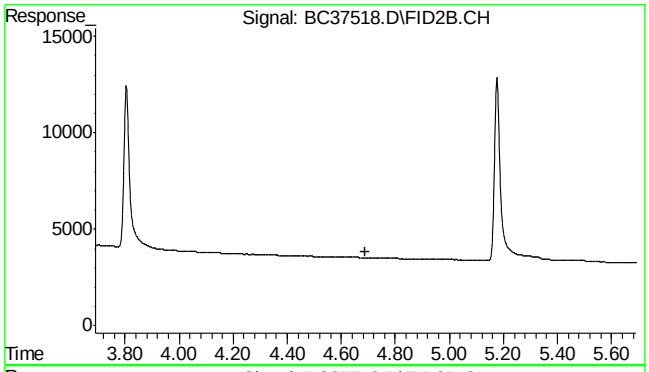
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



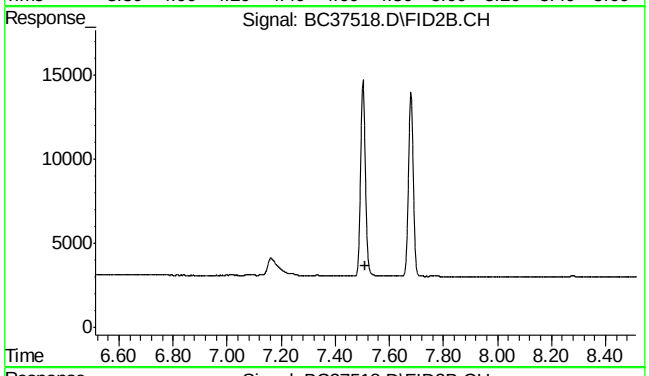
#25 c-9

R.T.: 3.300 min
Delta R.T.: 0.000 min
Response: 12744
Conc: N.D.



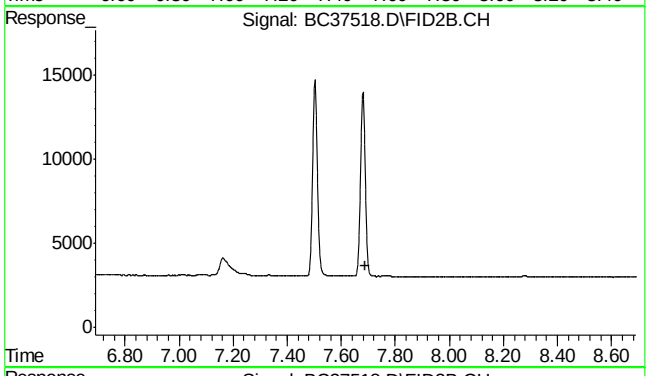
#26 c-10

R.T.: 4.690 min
Delta R.T.: 0.000 min
Response: 15903
Conc: N.D.



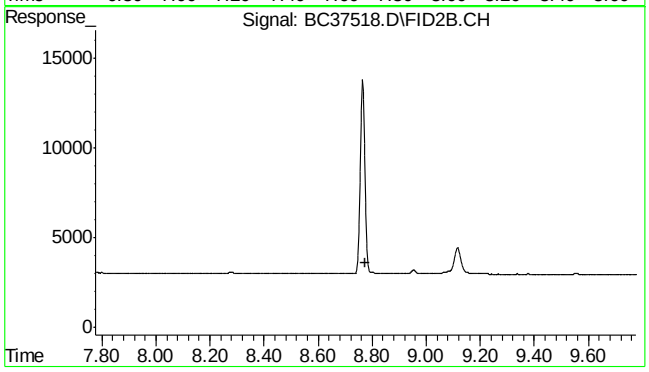
#27 naphthalene #2

R.T.: 7.502 min
Delta R.T.: -0.010 min
Response: 14347
Conc: N.D.



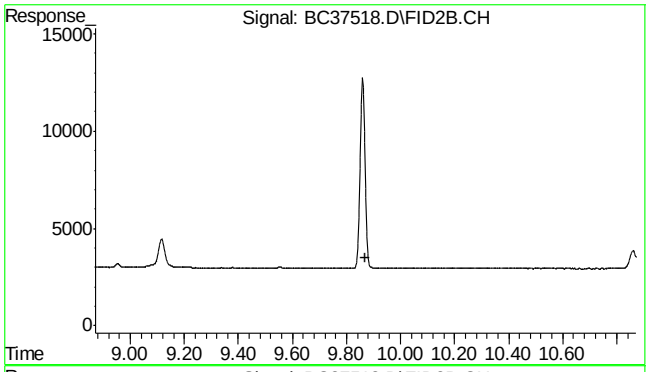
#28 c-12

R.T.: 7.680 min
Delta R.T.: -0.010 min
Response: 13528
Conc: N.D.



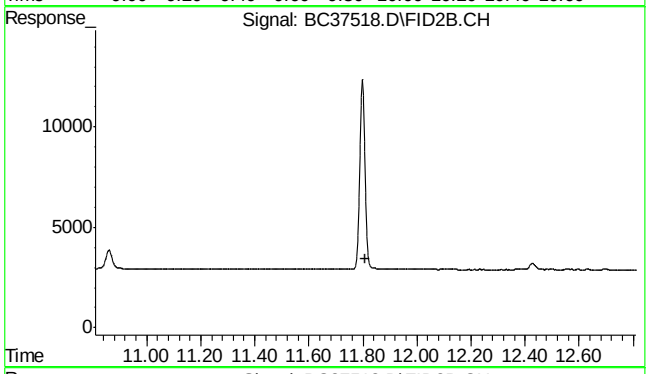
#29 2-methylnaphthalene #2

R.T.: 8.765 min
Delta R.T.: -0.011 min
Response: 12905
Conc: N.D.



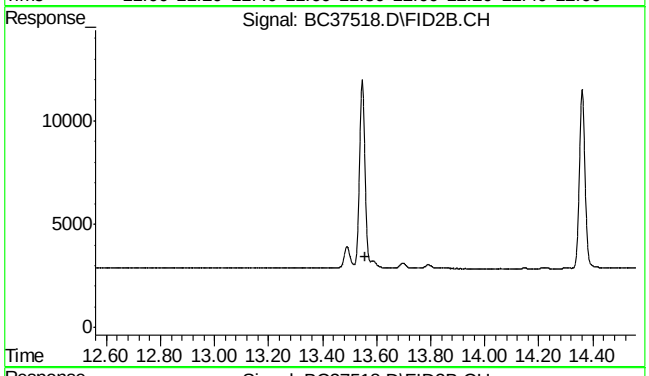
#30 c-14

R.T.: 9.860 min
Delta R.T.: -0.011 min
Response: 12507
Conc: N.D.



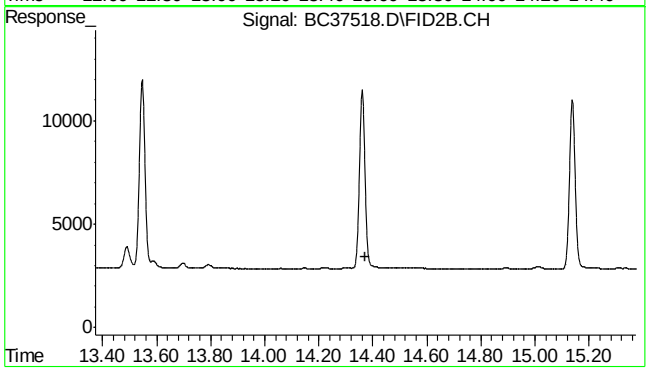
#31 c-16

R.T.: 11.797 min
Delta R.T.: -0.013 min
Response: 12770
Conc: N.D.



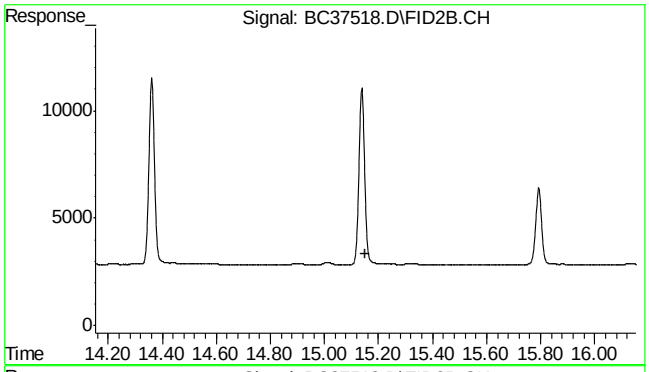
#32 c-18

R.T.: 13.547 min
Delta R.T.: -0.013 min
Response: 12908
Conc: N.D.



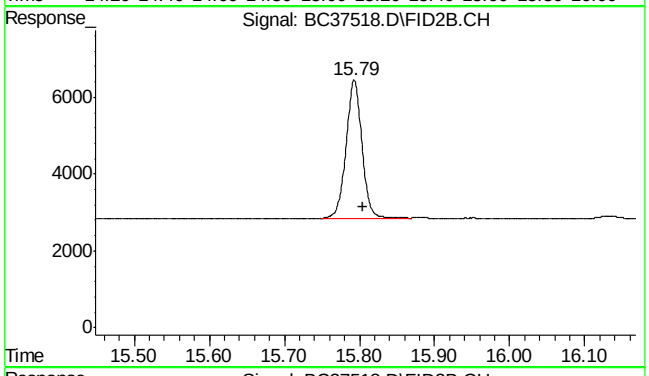
#33 c-19

R.T.: 14.361 min
Delta R.T.: -0.013 min
Response: 12486
Conc: N.D.



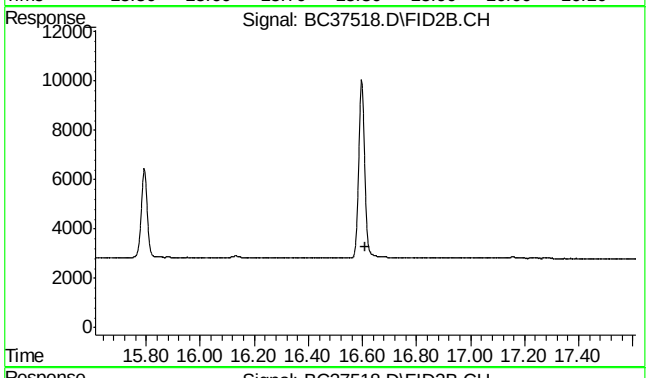
#34 c-20

R.T.: 15.138 min
Delta R.T.: -0.014 min
Response: 12165
Conc: N.D.



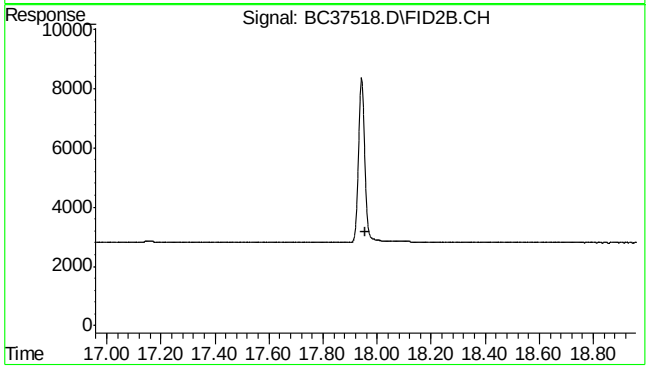
#35 1-chlorooctadecane

R.T.: 15.792 min
Delta R.T.: -0.013 min
Response: 5340
Conc: 0.10 ppm



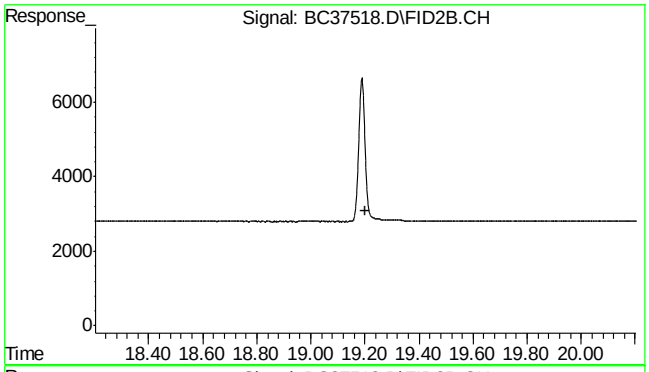
#36 c-22

R.T.: 16.597 min
Delta R.T.: -0.015 min
Response: 11257
Conc: N.D.



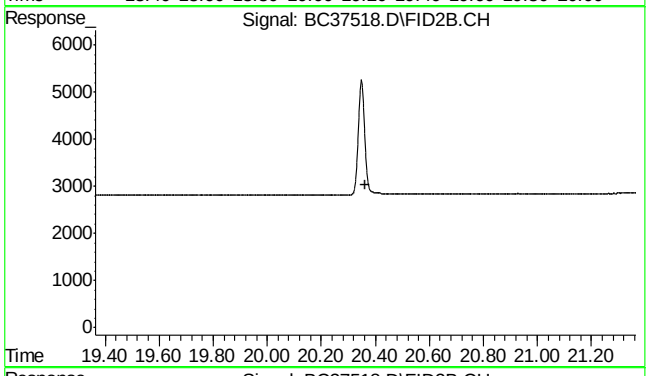
#37 c-24

R.T.: 17.942 min
Delta R.T.: -0.015 min
Response: 9156
Conc: N.D.



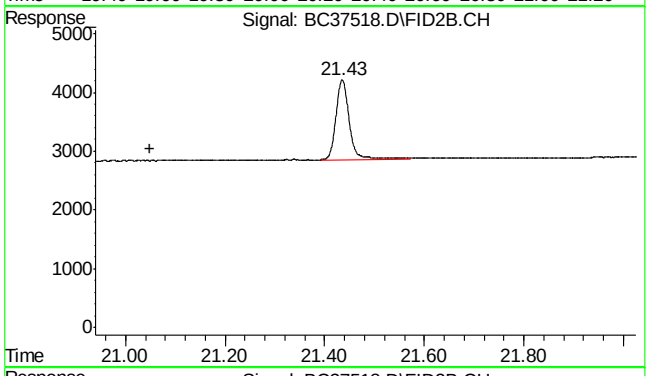
#38 c-26

R.T.: 19.188 min
Delta R.T.: -0.014 min
Response: 6454
Conc: N.D.



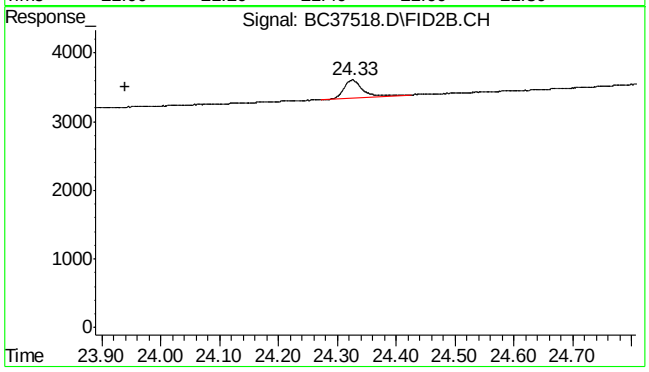
#39 c-28

R.T.: 20.348 min
Delta R.T.: -0.016 min
Response: 4139
Conc: N.D.



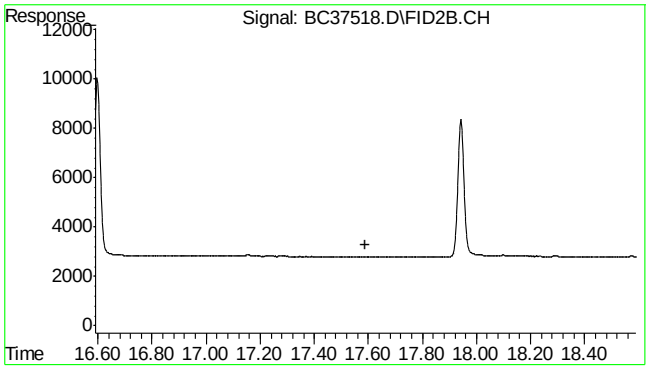
#40 c-30

R.T.: 21.050 min
Delta R.T.: 0.000 min
Response: 2554
Conc: 0.81 ppm m



#41 c-36

R.T.: 23.940 min
Delta R.T.: 0.000 min
Response: 620
Conc: 8.94 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.6

10

BC37519.D

Manual Integrations APPROVED (compounds with "m" flag)

John Hamilton 03/15/10 13:43

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37519.D\FID1A.CH Vial: 89
Signal #2 : C:\MSDCHEM\1\DATA\BC37519.D\FID2B.CH
Acq On : 08 Mar 2010 10:40 pm Operator: KimD
Sample : ic1911-1 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 09:02:58 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 09:02:05 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s 2-fluorobiphenyl	9.37	4928	0.857	ppm	m
Spiked Amount 20.000 Range 40 - 140	Recovery =	4.29%#			
6) s 2-bromonaphthalene	10.46	2385	0.634	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery =	3.17%#			
11) s o-terphenyl	14.22	6544	0.943	ppm	m
Spiked Amount 20.000 Range 40 - 140	Recovery =	4.71%#			
22) s bht	0.00	0	N.D.	ppm	d
23) s BHT	0.00	0	N.D.	ppm	d
35) s 1-chlorooctadecane	15.79	1870	N.D.	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery =	0.00%#			
42) s BHT	0.00	0	N.D.	ppm	
Target Compounds					
1) h c11-c22 aromatics (Unadj.)	0.00	0	N.D.	ppm	
2) naphthalene	7.29	5539	0.847	ppm	
3) 2-methylnaphthalene	8.57	5196	0.825	ppm	m
5) acenaphthylene	10.21	5702	0.873	ppm	
7) acenaphthene	10.57	6730	0.974	ppm	m
8) fluorene	11.52	4943	0.809	ppm	m
9) phenanthrene	13.28	4437	0.705	ppm	m
10) anthracene	13.36f	4740	0.776	ppm	m
12) fluoranthene	15.52	4959	0.784	ppm	m
13) pyrene	15.91f	5082	0.779	ppm	m
14) benzo(a)anthracene	18.23	2161	1.504	ppm	m
15) chrysene	18.30f	4923	0.820	ppm	m
16) benzo(b)fluoranthene	20.15f	2807	1.045	ppm	m
17) benzo(k)fluoranthene	20.19f	4191	0.740	ppm	m
18) benzo(a)pyrene	20.66f	3403	N.D.	ppm	m
19) indeno(1,2,3-cd)pyrene	22.34f	1810	BelowCal	ppm	m
20) dibenzo(ah)anthracene	22.42	1689	0.538	ppm	m
21) benzo(ghi)perylene	22.67f	2766	N.D.	ppm	m
25) h c-9	3.30	6601	N.D.	ppm	
26) h c-10	4.69	10036	N.D.	ppm	
27) naphthalene #2	7.50	7206	N.D.	ppm	
28) c-12	7.68	6819	N.D.	ppm	
29) 2-methylnaphthalene #2	8.76	6564	N.D.	ppm	
30) c-14	9.86	6241	N.D.	ppm	
31) c-16	11.80	6401	N.D.	ppm	
32) c-18	13.55	6237	N.D.	ppm	m
33) c-19	14.36	5945	N.D.	ppm	
34) c-20	15.14f	5640	N.D.	ppm	
36) c-22	16.60	4605	N.D.	ppm	
37) c-24	17.94f	3257	N.D.	ppm	m

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37519.D EPH030810.M Wed Mar 17 13:36:06 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37519.D\FID1A.CH         Vial: 89
Signal #2 : C:\MSDCHEM\1\DATA\BC37519.D\FID2B.CH
Acq On    : 08 Mar 2010  10:40 pm                    Operator: KimD
Sample    : ic1911-1                                 Inst    : GCBC
Misc      : op20795,gbc1911,11.18,,,2,,s             Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 09 09:02:58 2010  Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 09:02:05 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :
```

	Compound	R.T.	Response	Conc	Units	
38)	c-26	19.19	2093	N.D.	ppm	m
39)	c-28	20.35	1337	N.D.	ppm	m
40) h	c-30	21.05	914	0.909	ppm	
41) h	c-36	23.94	248	6.903	ppm	

10.5.7

10

(f)=RT Delta > 1/2 Window (m)=manual int.

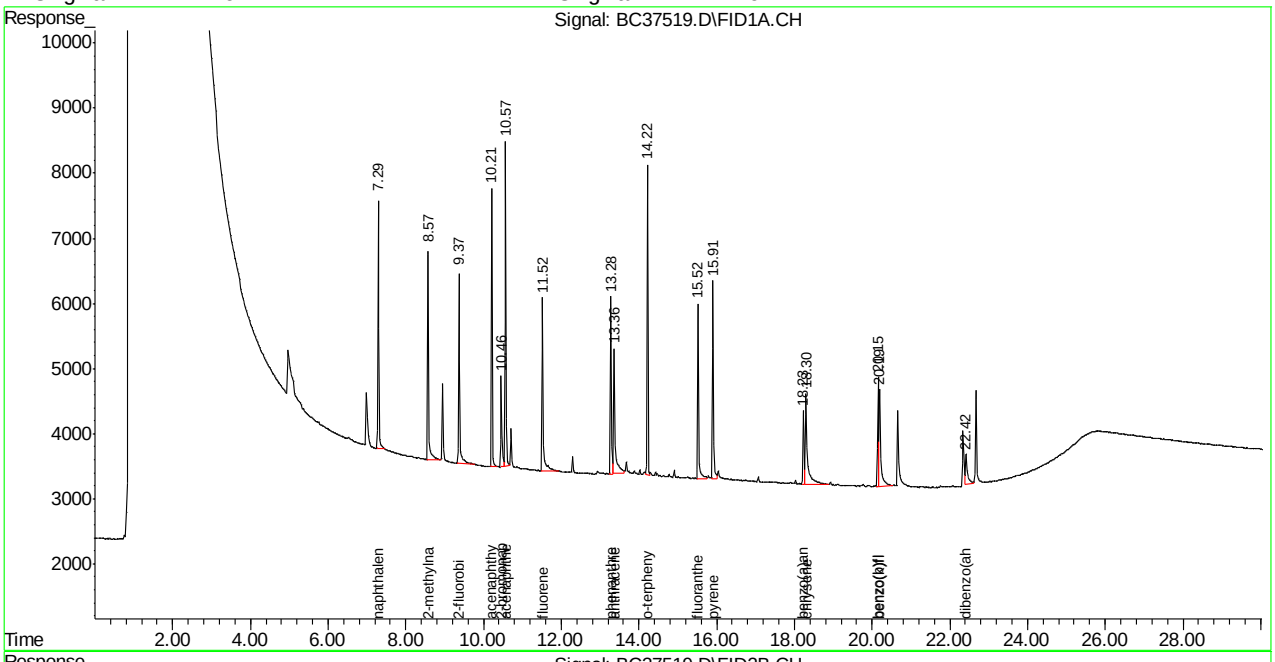
BC37519.D EPH030810.M Wed Mar 17 13:36:06 2010 RPGEN1

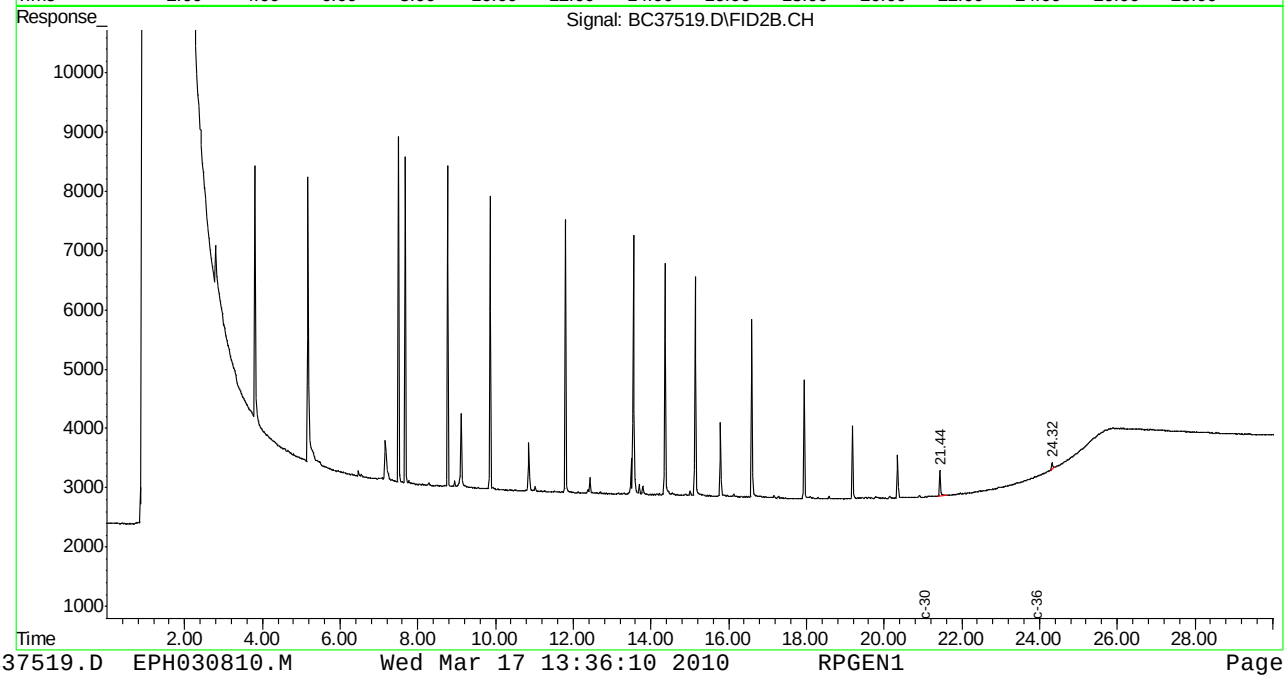
Quantitation Report (QT Reviewed)

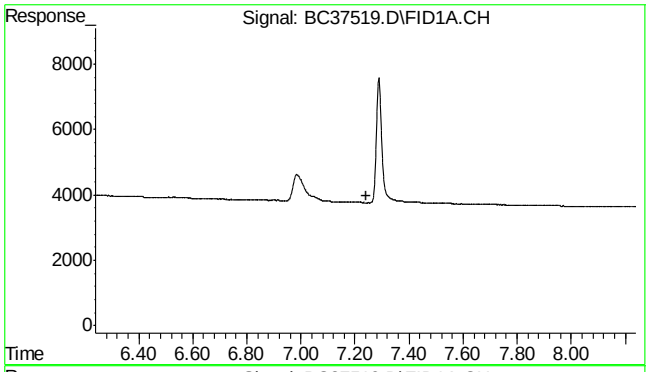
Signal #1 : C:\MSDCHEM\1\DATA\BC37519.D\FID1A.CH Vial: 89
Signal #2 : C:\MSDCHEM\1\DATA\BC37519.D\FID2B.CH
Acq On : 08 Mar 2010 10:40 pm Operator: KimD
Sample : ic1911-1 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 10:06 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 09:02:05 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

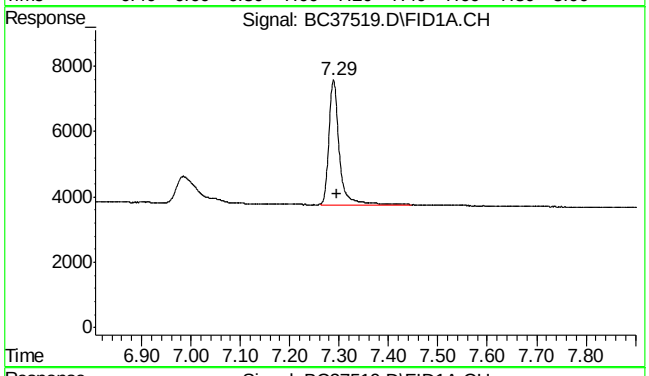






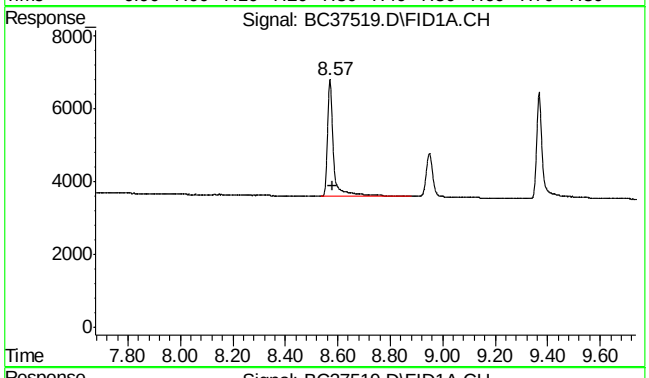
#1 c11-c22 aromatics (Unadj.)

R.T.: 0.000 min
Exp R.T. : 7.240 min
Response: -608
Conc: N.D.



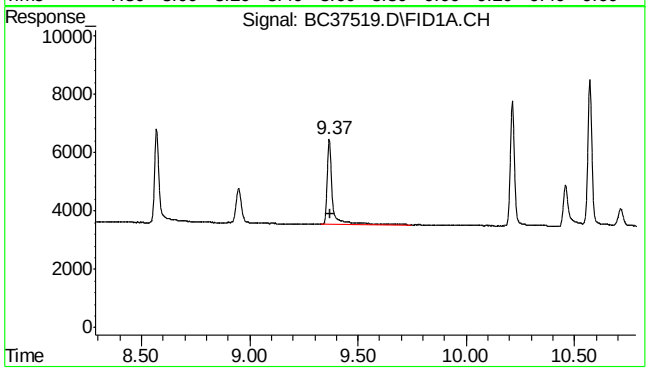
#2 naphthalene

R.T.: 7.288 min
Delta R.T.: -0.006 min
Response: 5539
Conc: 0.85 ppm



#3 2-methylnaphthalene

R.T.: 8.570 min
Delta R.T.: -0.009 min
Response: 5196
Conc: 0.83 ppm m



#4 2-fluorobiphenyl

R.T.: 9.367 min
Delta R.T.: -0.007 min
Response: 4928
Conc: 0.86 ppm m

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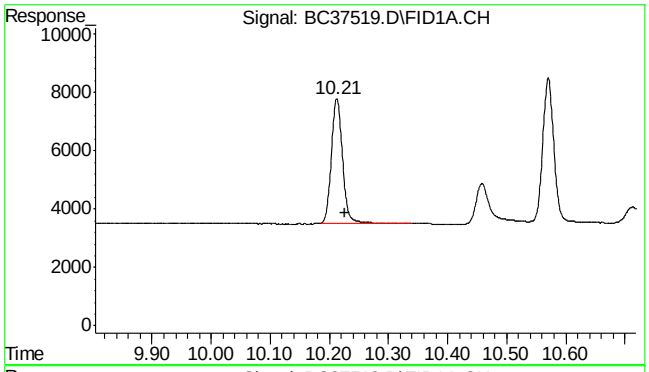
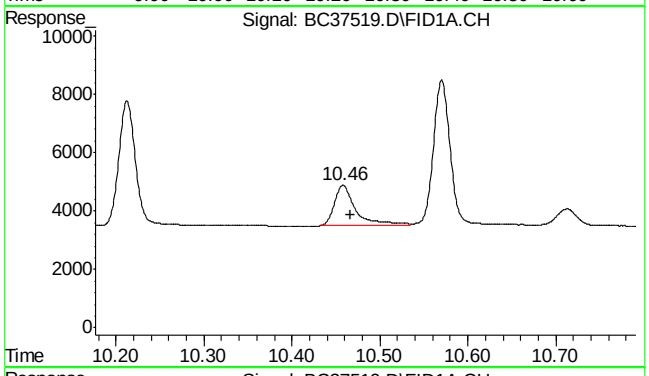


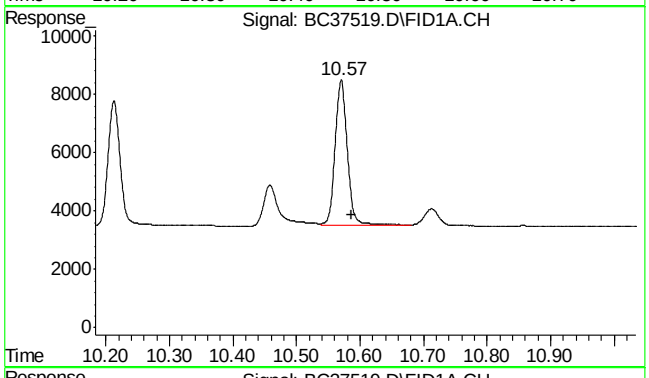
#5 acenaphthylene

R.T.: 10.212 min
Delta R.T.: -0.014 min
Response: 5702
Conc: 0.87 ppm



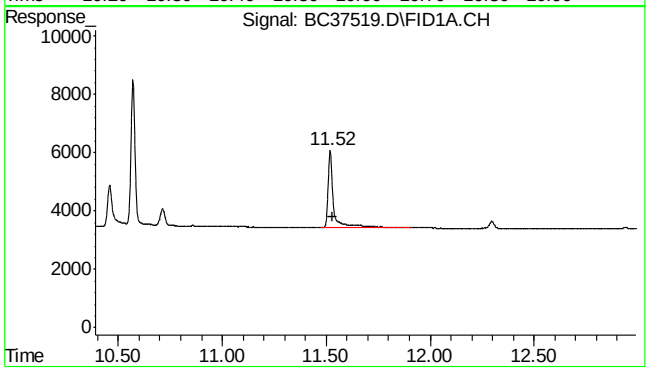
#6 2-bromonaphthalene

R.T.: 10.458 min
Delta R.T.: -0.009 min
Response: 2385
Conc: 0.63 ppm



#7 acenaphthene

R.T.: 10.570 min
Delta R.T.: -0.016 min
Response: 6730
Conc: 0.97 ppm m



#8 fluorene

R.T.: 11.518 min
Delta R.T.: -0.014 min
Response: 4943
Conc: 0.81 ppm m

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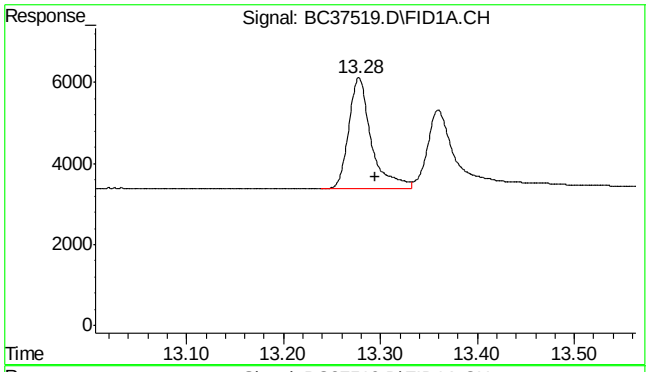
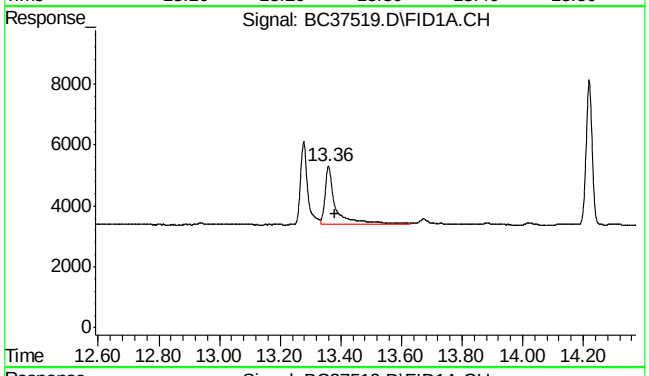


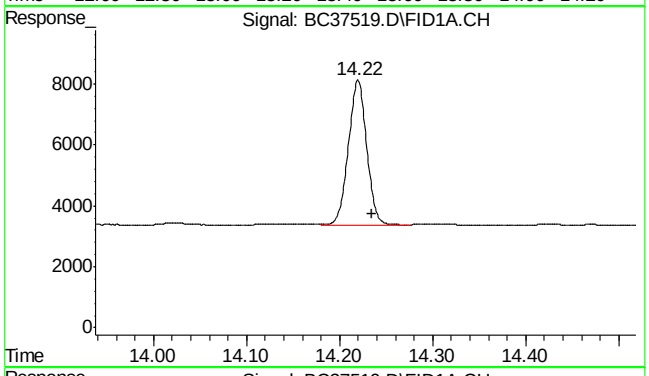
#9 phenanthrene

R.T.: 13.278 min
Delta R.T.: -0.016 min
Response: 4437
Conc: 0.70 ppm m



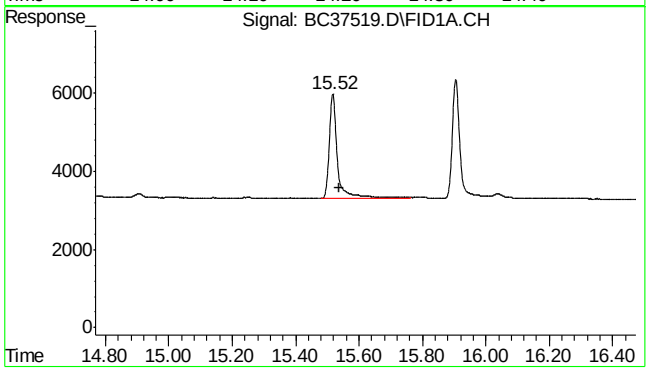
#10 anthracene

R.T.: 13.359 min
Delta R.T.: -0.020 min
Response: 4740
Conc: 0.78 ppm m



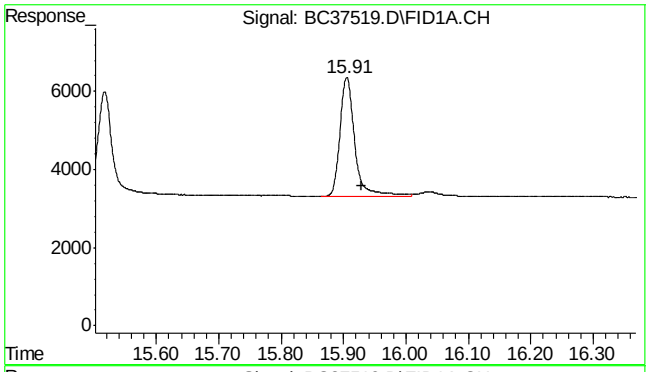
#11 o-terphenyl

R.T.: 14.219 min
Delta R.T.: -0.015 min
Response: 6544
Conc: 0.94 ppm m



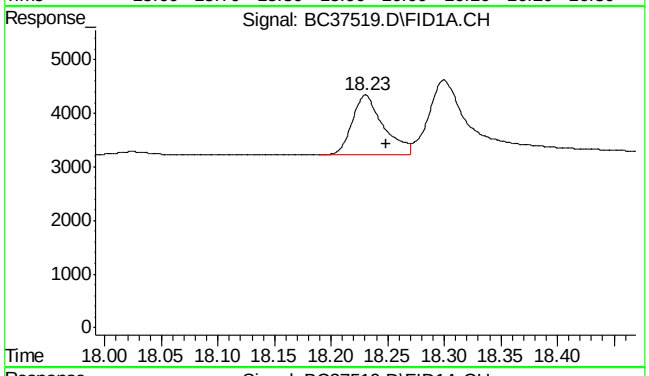
#12 fluoranthene

R.T.: 15.517 min
Delta R.T.: -0.022 min
Response: 4959
Conc: 0.78 ppm m



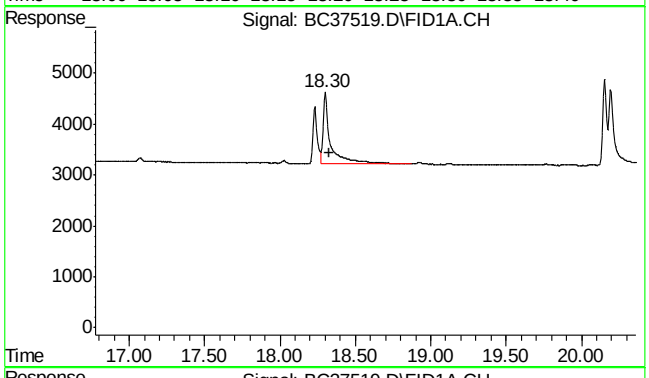
#13 pyrene

R.T.: 15.905 min
Delta R.T.: -0.025 min
Response: 5082
Conc: 0.78 ppm m



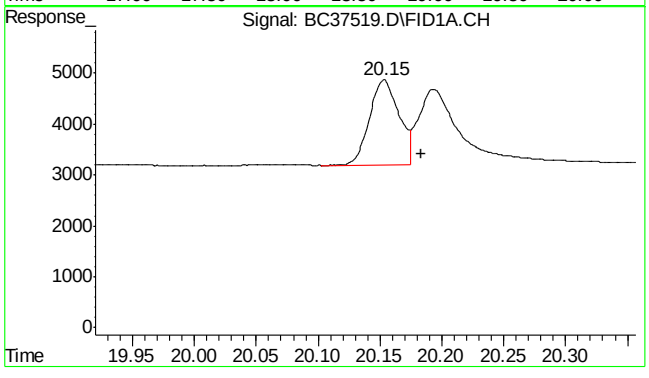
#14 benzo(a)anthracene

R.T.: 18.230 min
Delta R.T.: -0.019 min
Response: 2161
Conc: 1.50 ppm m



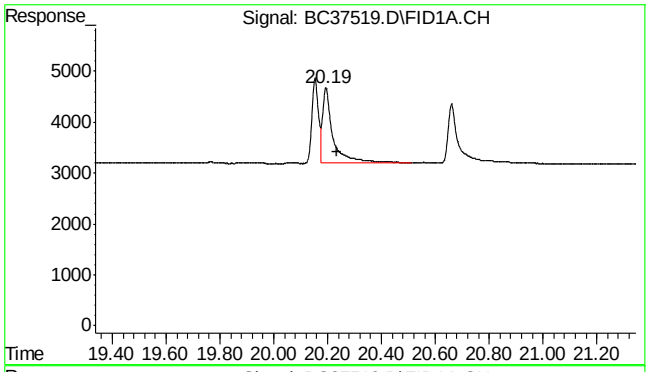
#15 chrysene

R.T.: 18.299 min
Delta R.T.: -0.029 min
Response: 4923
Conc: 0.82 ppm m



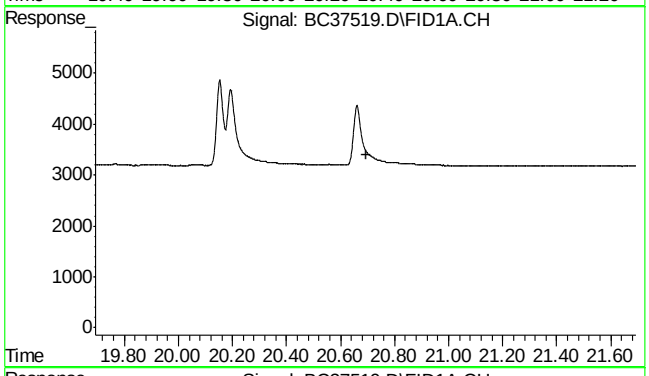
#16 benzo(b)fluoranthene

R.T.: 20.153 min
Delta R.T.: -0.030 min
Response: 2807
Conc: 1.05 ppm m



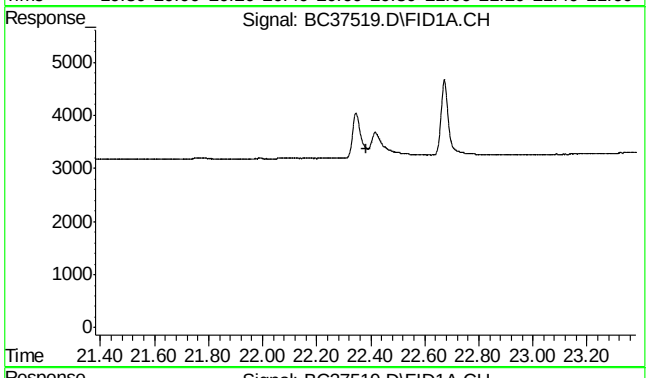
#17 benzo(k)fluoranthene

R.T.: 20.193 min
Delta R.T.: -0.042 min
Response: 4191
Conc: 0.74 ppm m



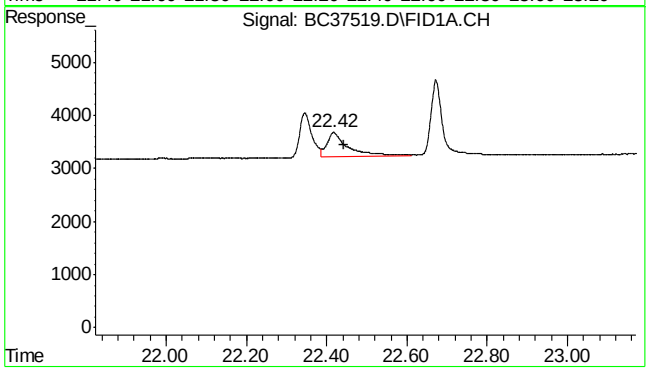
#18 benzo(a)pyrene

R.T.: 20.660 min
Delta R.T.: -0.033 min
Response: 3403
Conc: N.D.



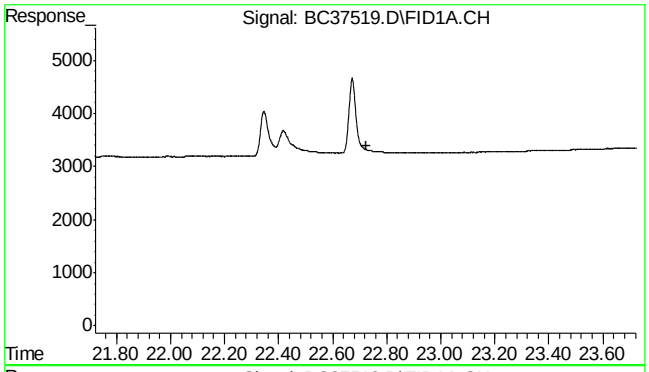
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.344 min
Delta R.T.: -0.037 min
Response: 1810
Conc: N.D.



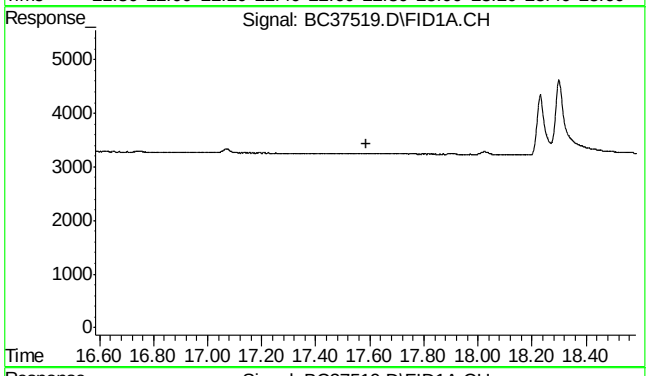
#20 dibenzo(ah)anthracene

R.T.: 22.416 min
Delta R.T.: -0.028 min
Response: 1689
Conc: 0.54 ppm m



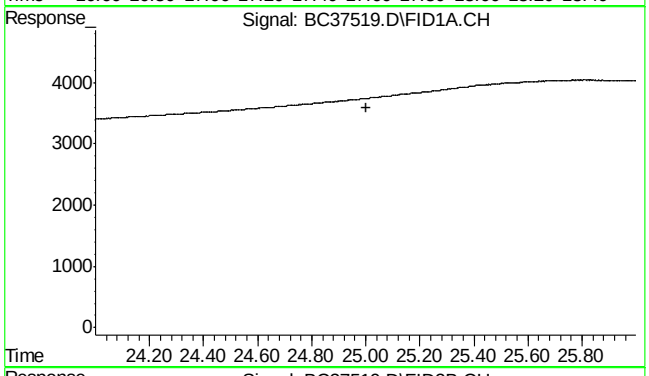
#21 benzo(ghi)perylene

R.T.: 22.671 min
Delta R.T.: -0.051 min
Response: 2766
Conc: N.D.



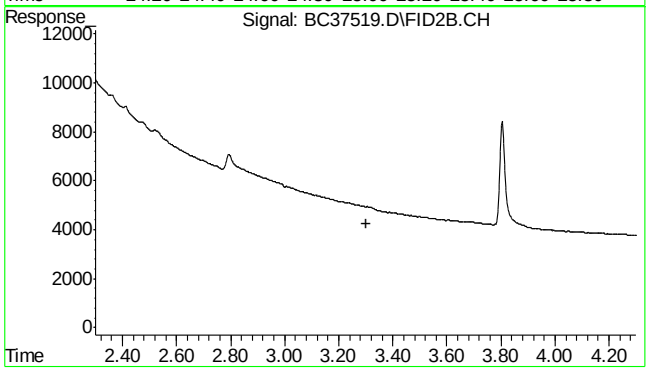
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



#25 c-9

R.T.: 3.300 min
Delta R.T.: 0.000 min
Response: 6601
Conc: N.D.

10.5.7 10

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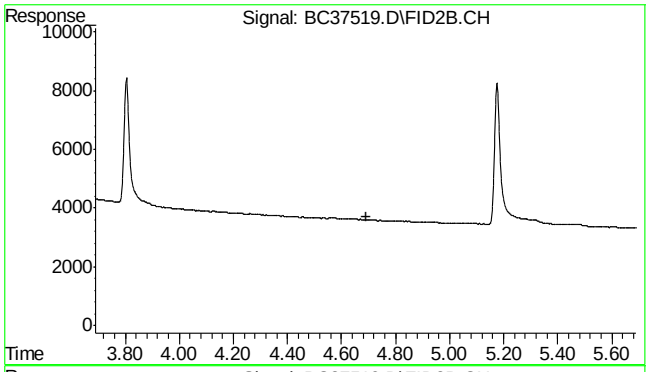
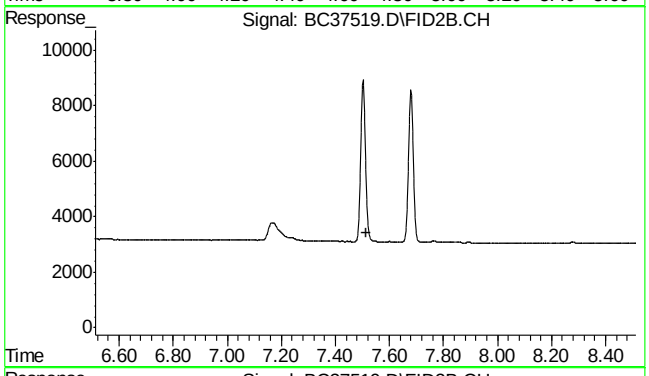


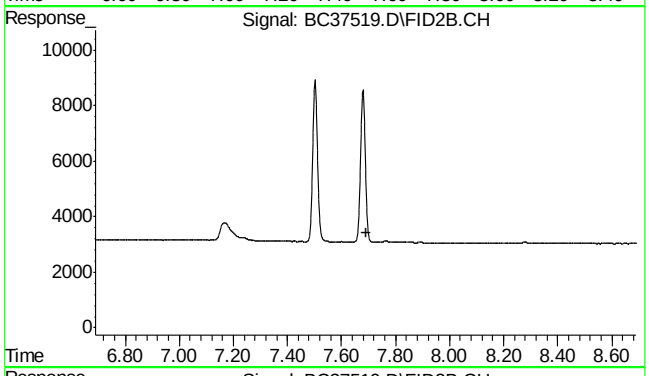
#26 c-10

R.T.: 4.690 min
Delta R.T.: 0.000 min
Response: 10036
Conc: N.D.



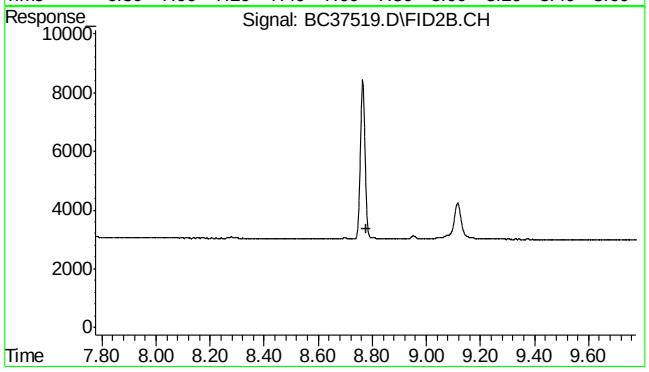
#27 naphthalene #2

R.T.: 7.503 min
Delta R.T.: -0.010 min
Response: 7206
Conc: N.D.



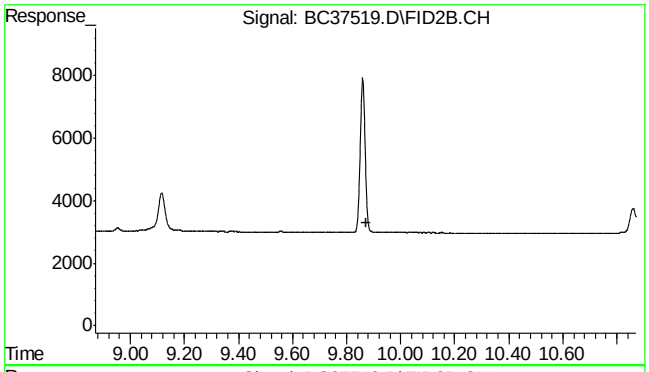
#28 c-12

R.T.: 7.679 min
Delta R.T.: -0.011 min
Response: 6819
Conc: N.D.



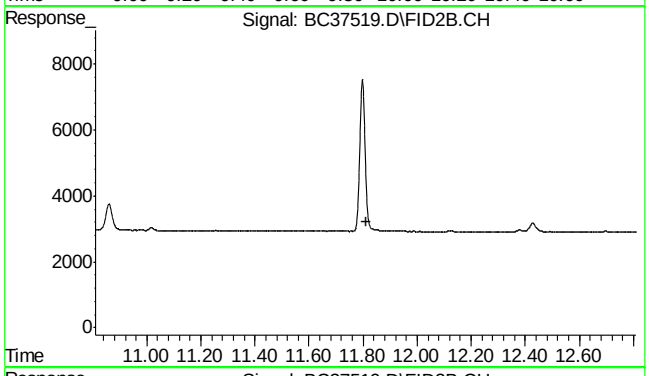
#29 2-methylnaphthalene #2

R.T.: 8.764 min
Delta R.T.: -0.011 min
Response: 6564
Conc: N.D.



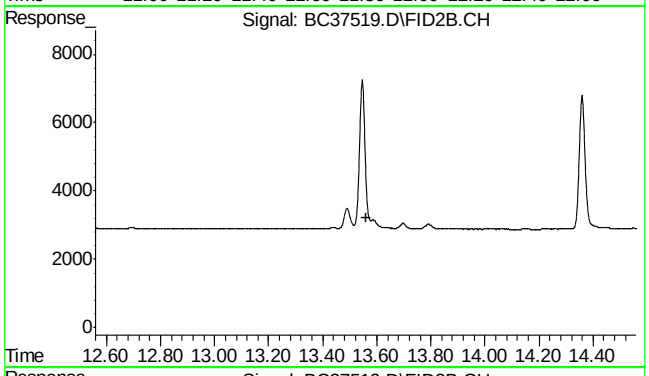
#30 c-14

R.T.: 9.859 min
Delta R.T.: -0.011 min
Response: 6241
Conc: N.D.



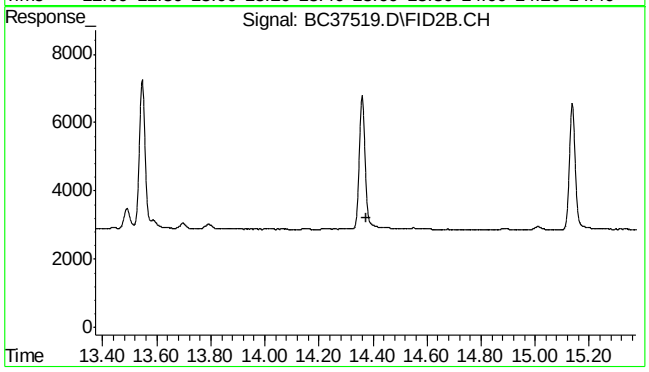
#31 c-16

R.T.: 11.798 min
Delta R.T.: -0.012 min
Response: 6401
Conc: N.D.



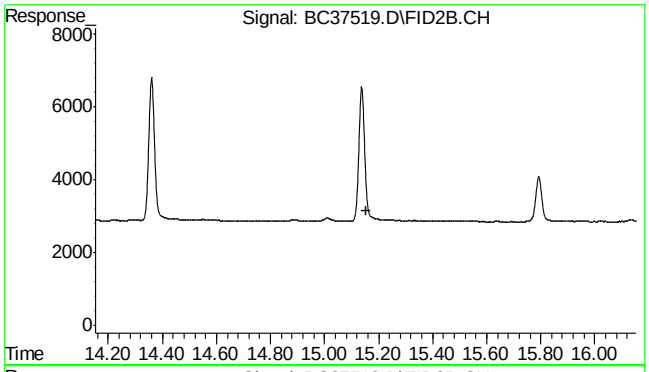
#32 c-18

R.T.: 13.546 min
Delta R.T.: -0.013 min
Response: 6237
Conc: N.D.



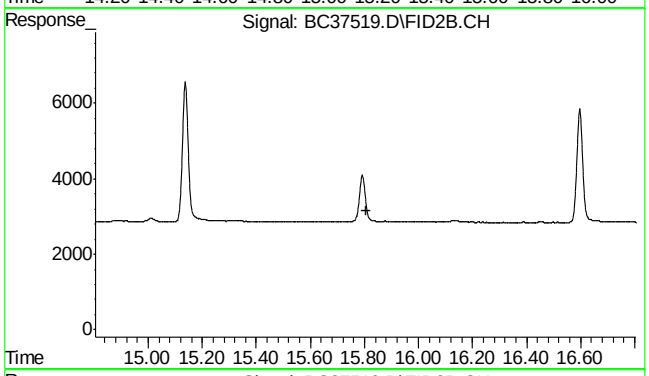
#33 c-19

R.T.: 14.359 min
Delta R.T.: -0.014 min
Response: 5945
Conc: N.D.



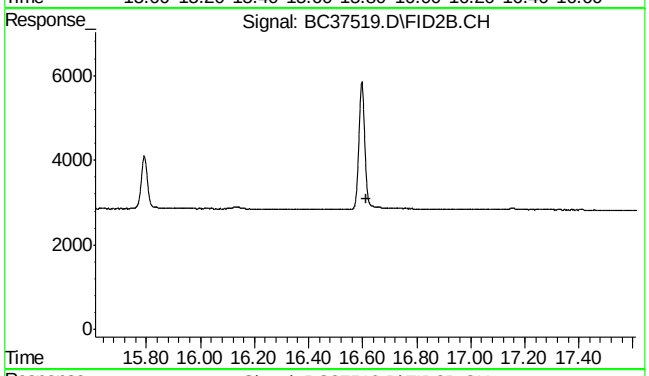
#34 c-20

R.T.: 15.137 min
Delta R.T.: -0.016 min
Response: 5640
Conc: N.D.



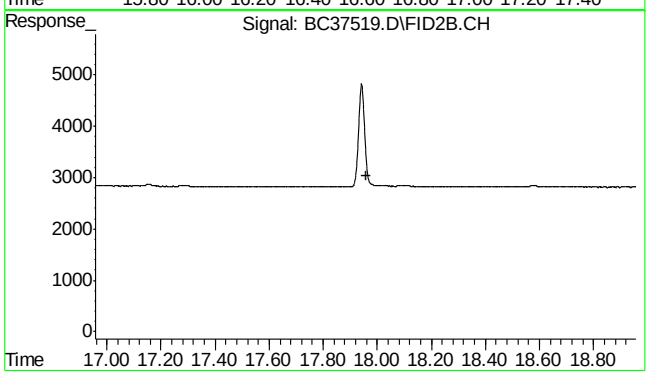
#35 1-chlorooctadecane

R.T.: 15.792 min
Delta R.T.: -0.013 min
Response: 1870
Conc: N.D.



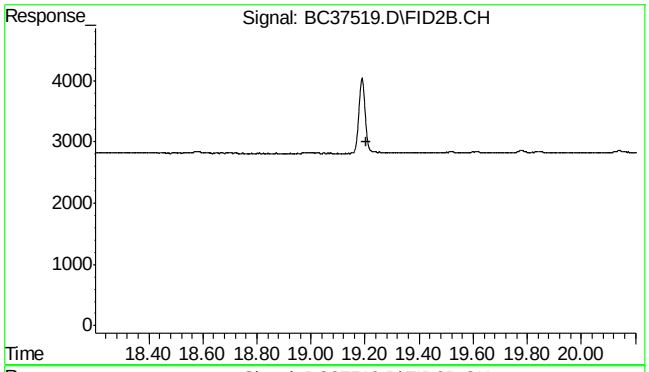
#36 c-22

R.T.: 16.597 min
Delta R.T.: -0.015 min
Response: 4605
Conc: N.D.



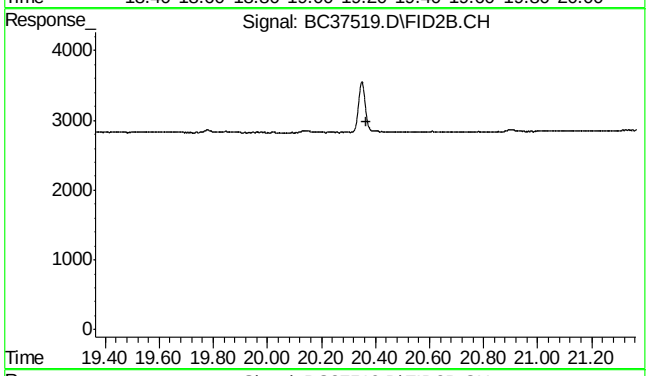
#37 c-24

R.T.: 17.942 min
Delta R.T.: -0.016 min
Response: 3257
Conc: N.D.



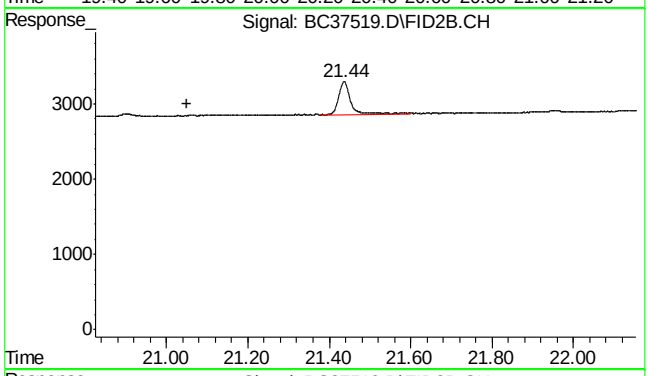
#38 c-26

R.T.: 19.188 min
Delta R.T.: -0.014 min
Response: 2093
Conc: N.D.



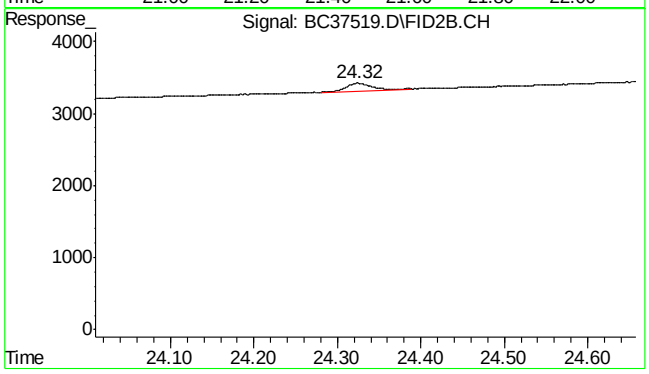
#39 c-28

R.T.: 20.349 min
Delta R.T.: -0.015 min
Response: 1337
Conc: N.D.



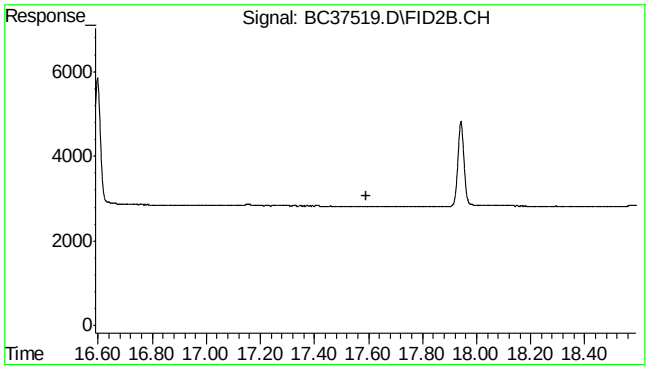
#40 c-30

R.T.: 21.050 min
Delta R.T.: 0.000 min
Response: 914
Conc: 0.91 ppm m



#41 c-36

R.T.: 23.940 min
Delta R.T.: 0.000 min
Response: 248
Conc: 6.90 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.7

10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37520.D\FID1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37520.D\FID2B.CH
Acq On : 08 Mar 2010 11:19 pm Operator: KimD
Sample : icv1911-50 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 09 14:19:17 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	293274	52.069 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 260.35%#	
6) s 2-bromonaphthalene	10.47	196017	55.020 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 275.10%#	
11) s o-terphenyl	14.23	340840	49.526 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 247.63%#	
35) s 1-chlorooctadecane	15.80	252801	55.796 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 278.98%#	
Target Compounds			
2) naphthalene	7.30	315386	49.316 ppm
3) 2-methylnaphthalene	8.58	303253	49.394 ppm
5) acenaphthylene	10.22	315795	49.228 ppm
7) acenaphthene	10.59	330104	47.944 ppm
8) fluorene	11.53	309591	52.073 ppm
9) phenanthrene	13.29	301439	49.991 ppm
10) anthracene	13.38	313962	53.083 ppm
12) fluoranthene	15.54	319969	52.179 ppm
13) pyrene	15.93	322838	51.086 ppm
14) benzo(a)anthracene	18.25	309483	57.551 ppm
15) chrysene	18.33	313929	53.643 ppm
16) benzo(b)fluoranthene	20.19	310051	60.771 ppm
17) benzo(k)fluoranthene	20.24	313408	57.472 ppm
18) benzo(a)pyrene	20.69	296840	57.984 ppm
19) indeno(1,2,3-cd)pyrene	22.38	259577	56.575 ppm
20) dibenzo(ah)anthracene	22.45	254053	65.289 ppm
21) benzo(ghi)perylene	22.72	268100	57.686 ppm
25) h c-9	3.81	336672	49.651 ppm
26) h c-10	5.18	339189	50.023 ppm
27) naphthalene #2	7.51	357222	47.488 ppm
28) c-12	7.69	330573	48.752 ppm
29) 2-methylnaphthalene #2	8.78	355205	52.394 ppm
30) c-14	9.87	329603	48.609 ppm
31) c-16	11.81	332083	48.975 ppm
32) c-18	13.56	337443	49.765 ppm
33) c-19	14.37	332055	58.851 ppm
34) c-20	15.15	332231	58.883 ppm
36) c-22	16.61	338707	60.030 ppm
37) c-24	17.96	331632	58.776 ppm
38) c-26	19.20	336663	59.668 ppm
39) c-28	20.36	321693	57.015 ppm
40) h c-30	21.45	312251	55.341 ppm
41) h c-36	24.33	169093	29.969 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37520.D EPH030810.M Tue Mar 09 14:54:13 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37520.D\FID1A.CH         Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37520.D\FID2B.CH
Acq On    : 08 Mar 2010  11:19 pm                    Operator: KimD
Sample    : icv1911-50                               Inst    : GCBC
Misc      : op20795,gbc1911,11.18,,,2,,s             Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 09 14:19:17 2010  Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.8

10

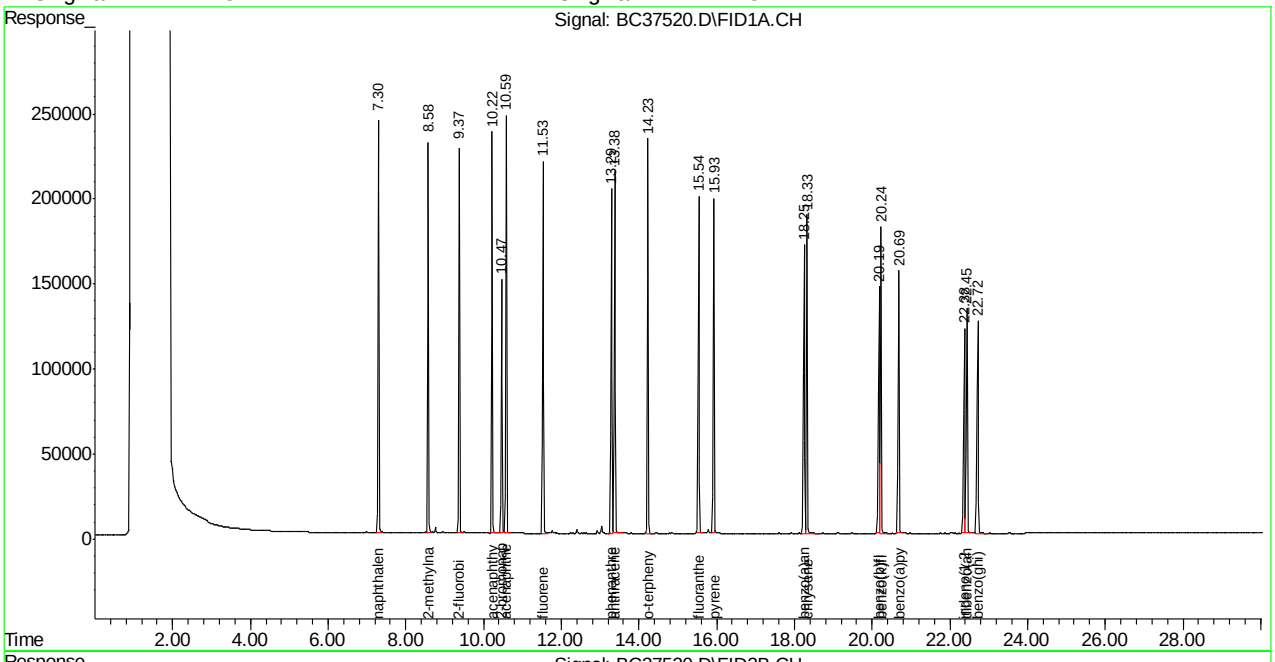
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37520.D  EPH030810.M      Tue Mar 09 14:54:13 2010      RPGEN1
```

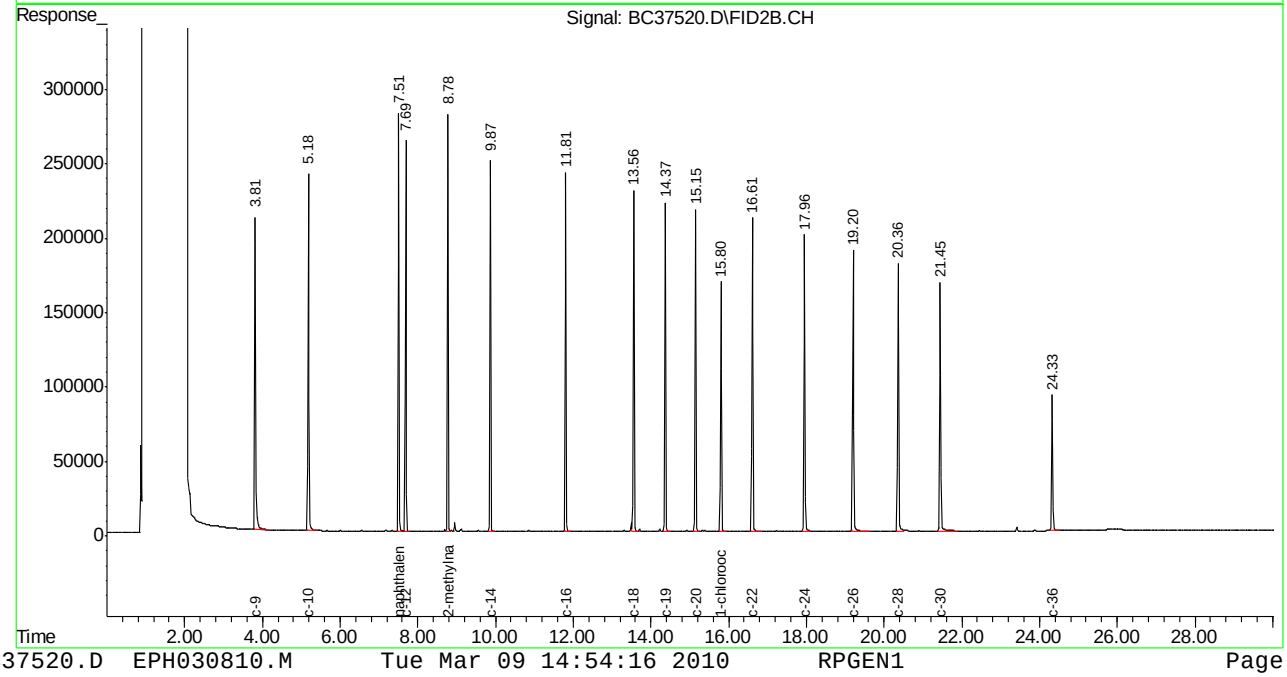
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37520.D\FID1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37520.D\FID2B.CH
Acq On : 08 Mar 2010 11:19 pm Operator: KimD
Sample : icv1911-50 Inst : GCBC
Misc : op20795,gbc1911,11.18,,,2,,s Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 9 14:20 2010 Quant Results File: EPH030810.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH030810.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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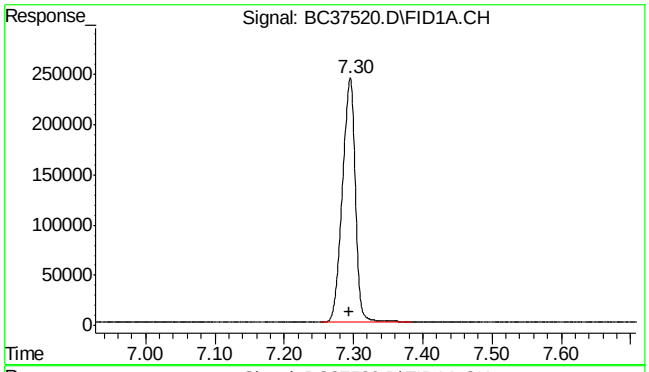
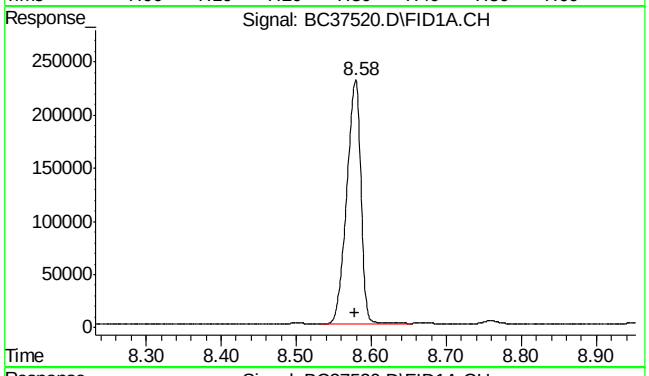


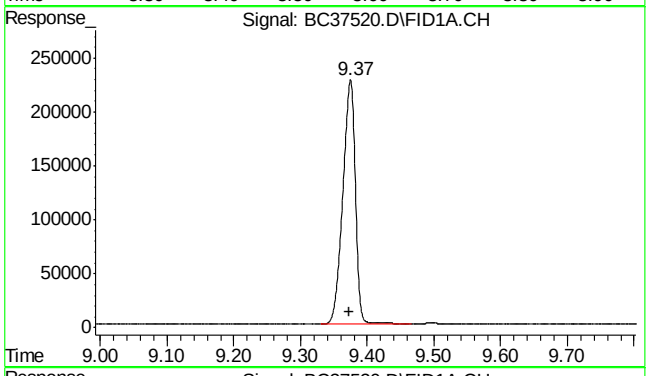
#2 naphthalene

R.T.: 7.295 min
Delta R.T.: 0.000 min
Response: 315386
Conc: 49.32 ppm



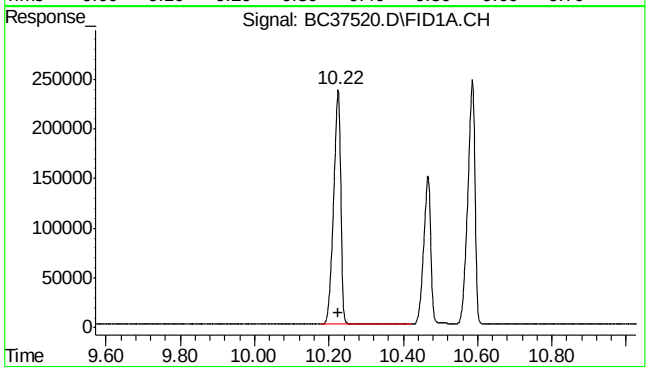
#3 2-methylnaphthalene

R.T.: 8.579 min
Delta R.T.: 0.000 min
Response: 303253
Conc: 49.39 ppm



#4 2-fluorobiphenyl

R.T.: 9.374 min
Delta R.T.: 0.000 min
Response: 293274
Conc: 52.07 ppm



#5 acenaphthylene

R.T.: 10.224 min
Delta R.T.: -0.001 min
Response: 315795
Conc: 49.23 ppm

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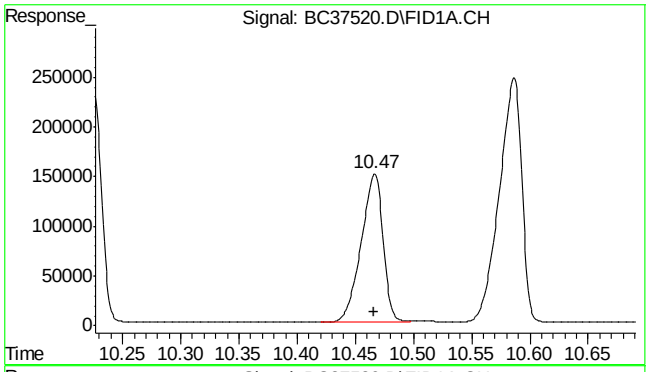
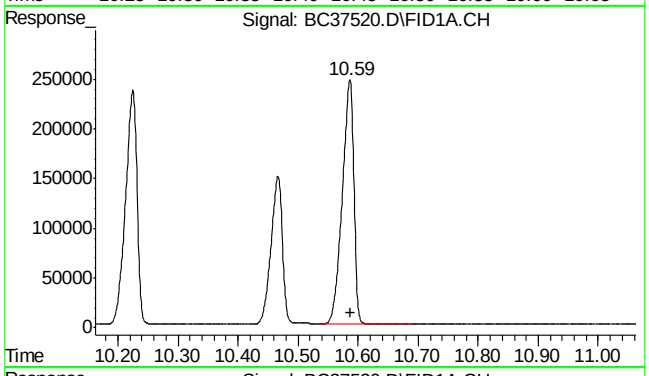


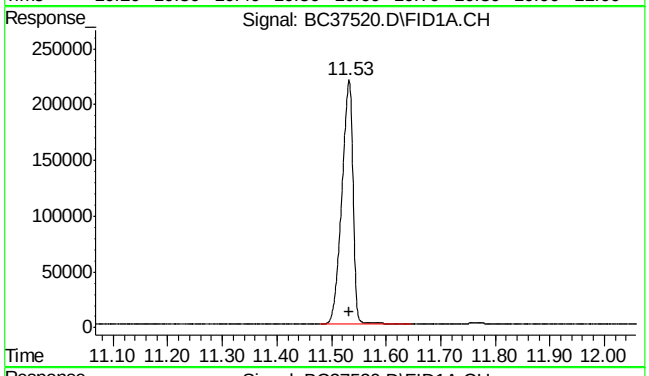
#6 2-bromonaphthalene

R.T.: 10.466 min
Delta R.T.: 0.000 min
Response: 196017
Conc: 55.02 ppm



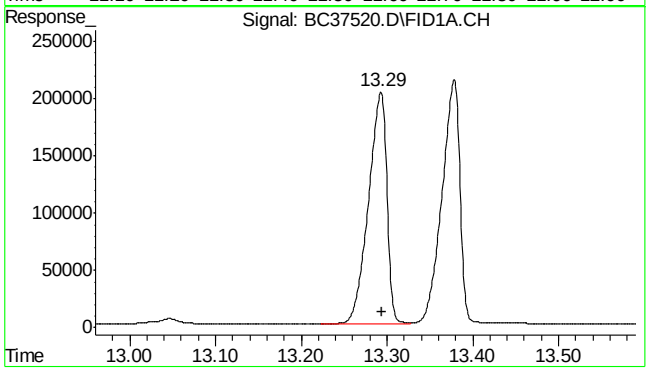
#7 acenaphthene

R.T.: 10.586 min
Delta R.T.: 0.000 min
Response: 330104
Conc: 47.94 ppm



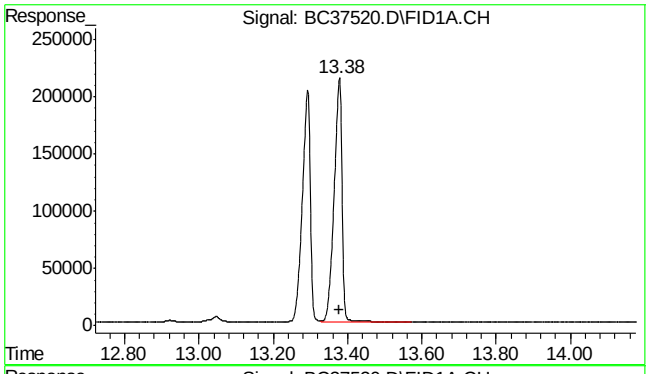
#8 fluorene

R.T.: 11.532 min
Delta R.T.: 0.000 min
Response: 309591
Conc: 52.07 ppm



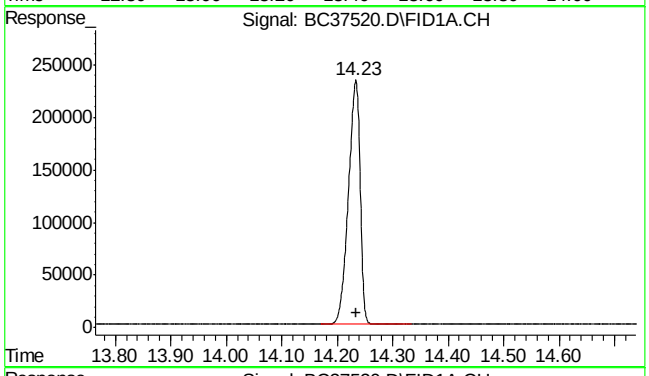
#9 phenanthrene

R.T.: 13.293 min
Delta R.T.: -0.001 min
Response: 301439
Conc: 49.99 ppm



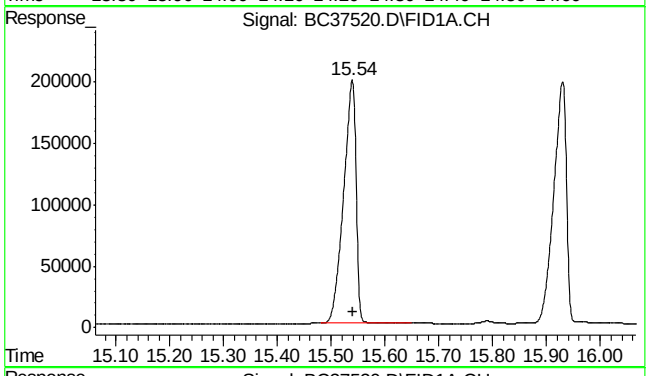
#10 anthracene

R.T.: 13.378 min
Delta R.T.: 0.000 min
Response: 313962
Conc: 53.08 ppm



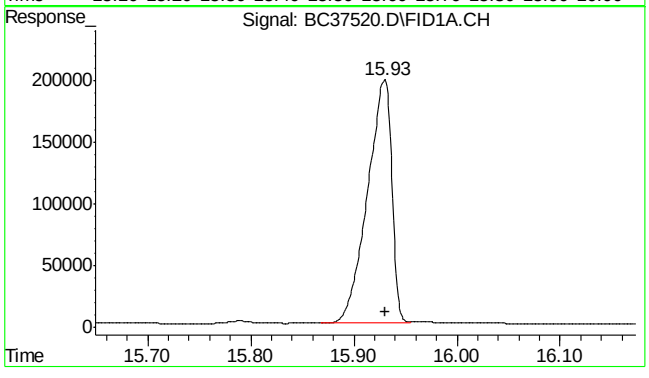
#11 o-terphenyl

R.T.: 14.233 min
Delta R.T.: 0.000 min
Response: 340840
Conc: 49.53 ppm



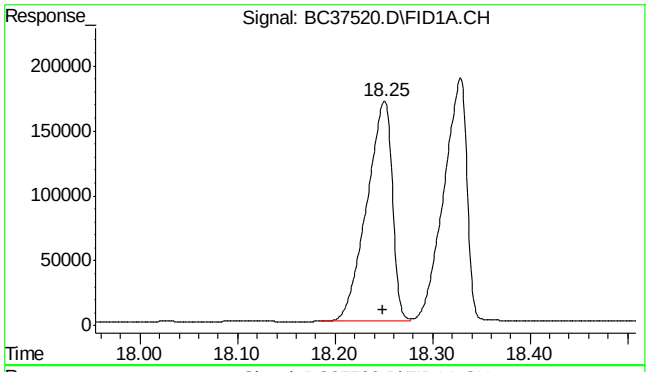
#12 fluoranthene

R.T.: 15.538 min
Delta R.T.: 0.000 min
Response: 319969
Conc: 52.18 ppm



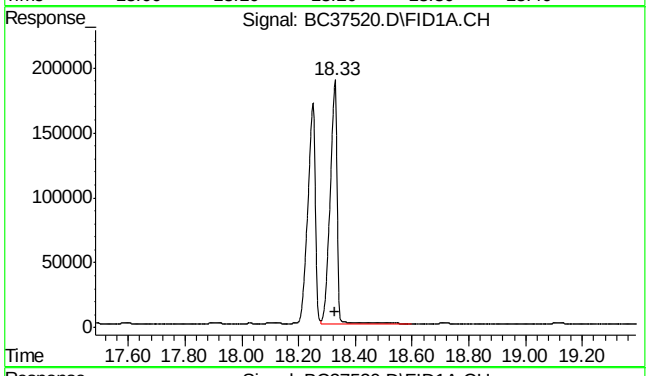
#13 pyrene

R.T.: 15.930 min
Delta R.T.: 0.000 min
Response: 322838
Conc: 51.09 ppm



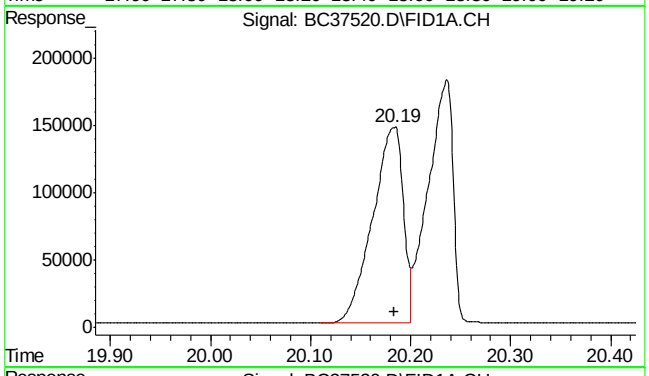
#14 benzo(a)anthracene

R.T.: 18.250 min
Delta R.T.: 0.001 min
Response: 309483
Conc: 57.55 ppm



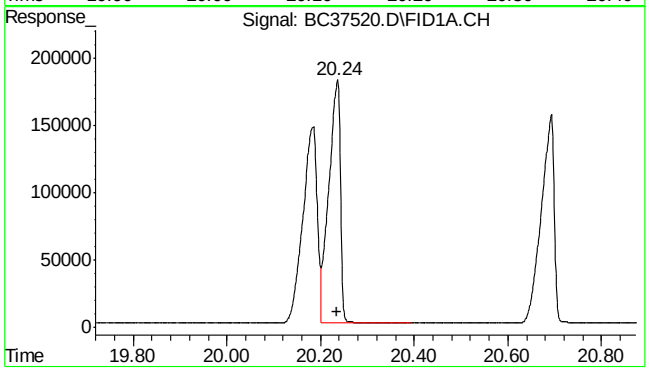
#15 chrysene

R.T.: 18.328 min
Delta R.T.: 0.000 min
Response: 313929
Conc: 53.64 ppm



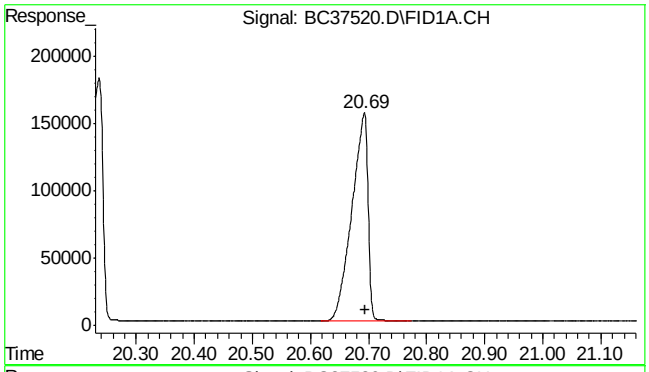
#16 benzo(b)fluoranthene

R.T.: 20.185 min
Delta R.T.: 0.002 min
Response: 310051
Conc: 60.77 ppm



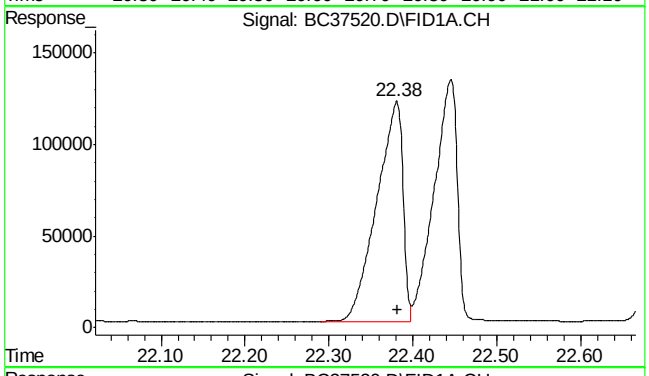
#17 benzo(k)fluoranthene

R.T.: 20.236 min
Delta R.T.: 0.001 min
Response: 313408
Conc: 57.47 ppm



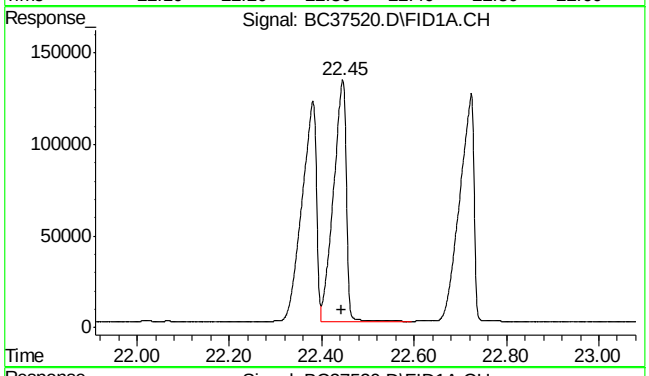
#18 benzo(a)pyrene

R.T.: 20.693 min
Delta R.T.: 0.000 min
Response: 296840
Conc: 57.98 ppm



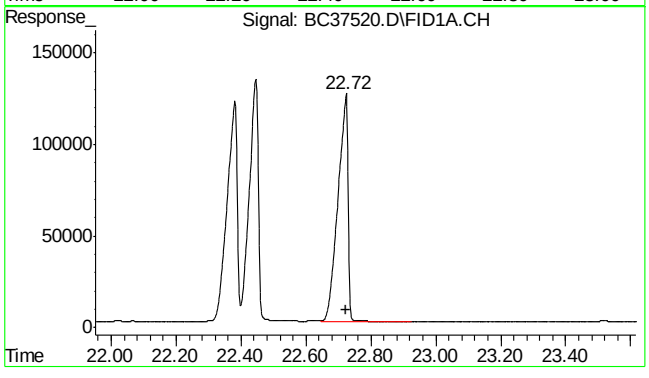
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.380 min
Delta R.T.: -0.001 min
Response: 259577
Conc: 56.57 ppm



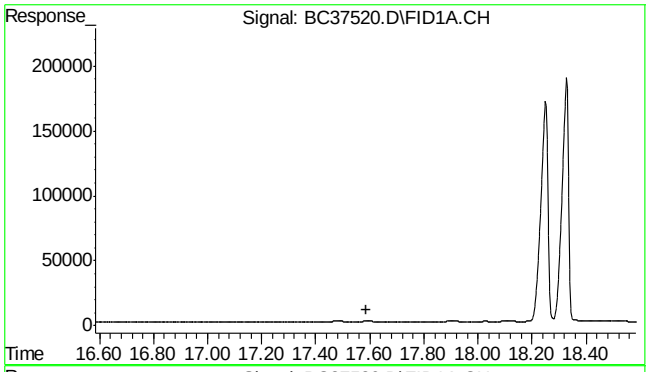
#20 dibenzo(ah)anthracene

R.T.: 22.445 min
Delta R.T.: 0.001 min
Response: 254053
Conc: 65.29 ppm



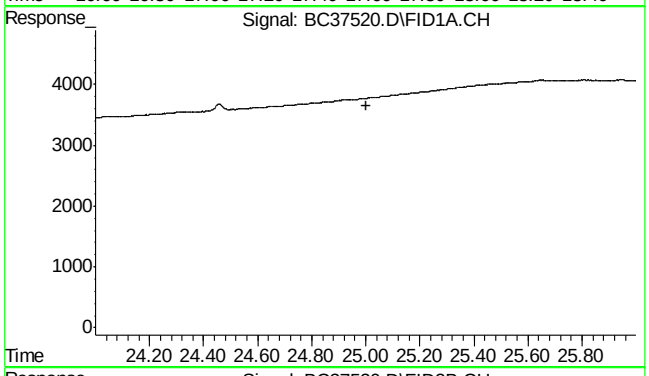
#21 benzo(ghi)perylene

R.T.: 22.723 min
Delta R.T.: 0.001 min
Response: 268100
Conc: 57.69 ppm



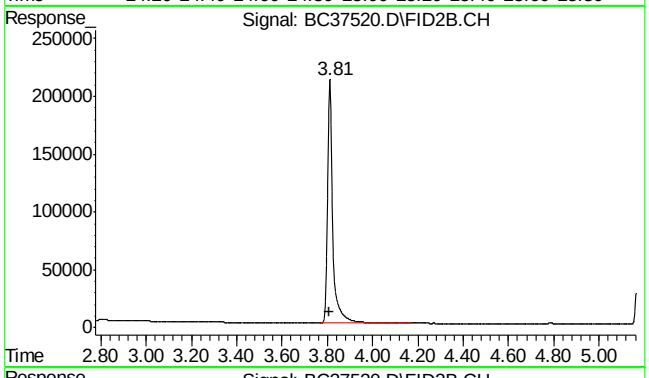
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



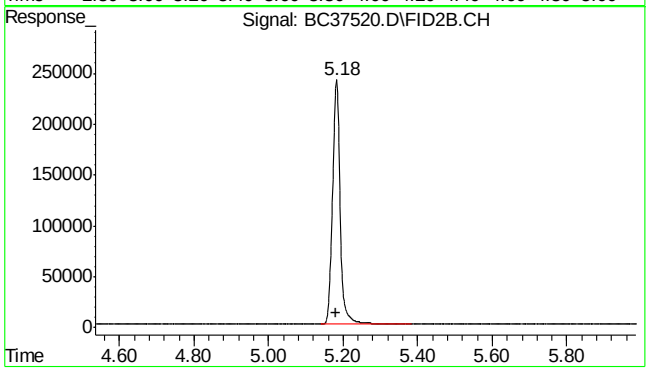
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



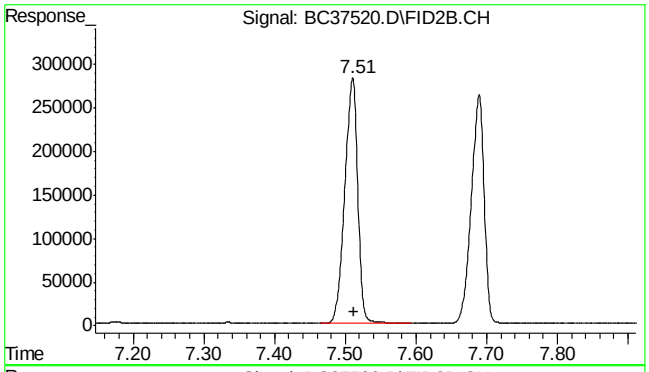
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 336672
Conc: 49.65 ppm m



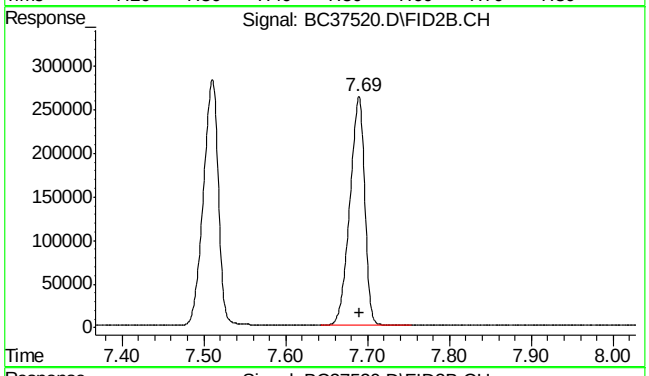
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 339189
Conc: 50.02 ppm m



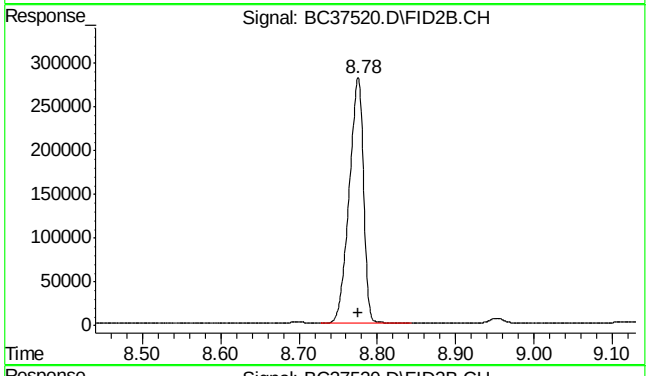
#27 naphthalene #2

R.T.: 7.510 min
Delta R.T.: -0.002 min
Response: 357222
Conc: 47.49 ppm



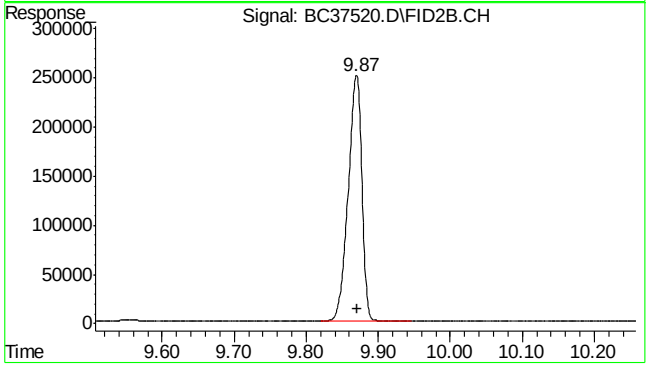
#28 c-12

R.T.: 7.689 min
Delta R.T.: 0.000 min
Response: 330573
Conc: 48.75 ppm



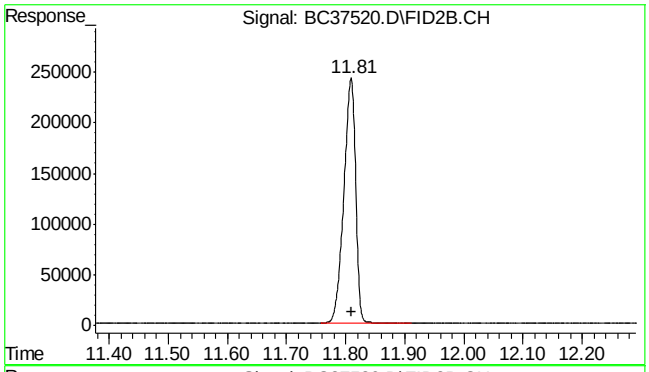
#29 2-methylnaphthalene #2

R.T.: 8.775 min
Delta R.T.: 0.000 min
Response: 355205
Conc: 52.39 ppm



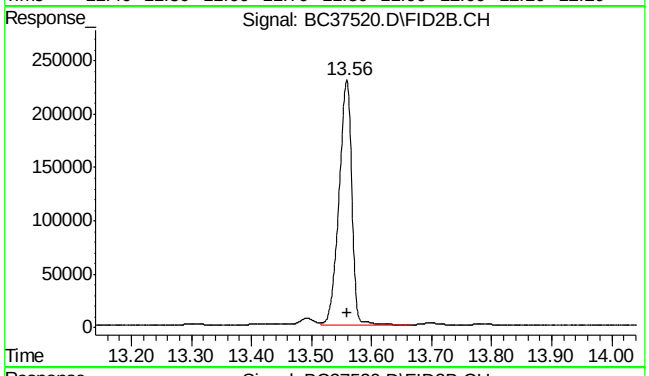
#30 c-14

R.T.: 9.870 min
Delta R.T.: 0.000 min
Response: 329603
Conc: 48.61 ppm



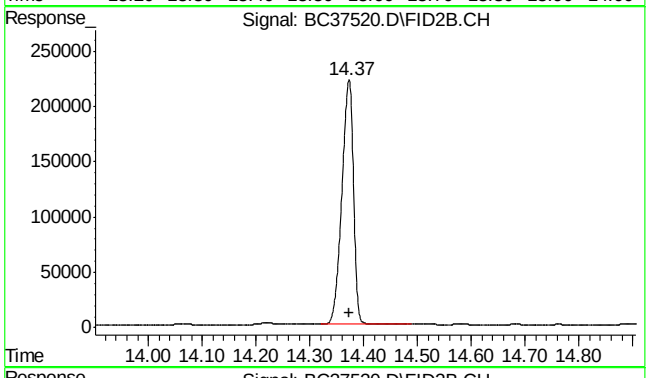
#31 c-16

R.T.: 11.809 min
Delta R.T.: 0.000 min
Response: 332083
Conc: 48.97 ppm



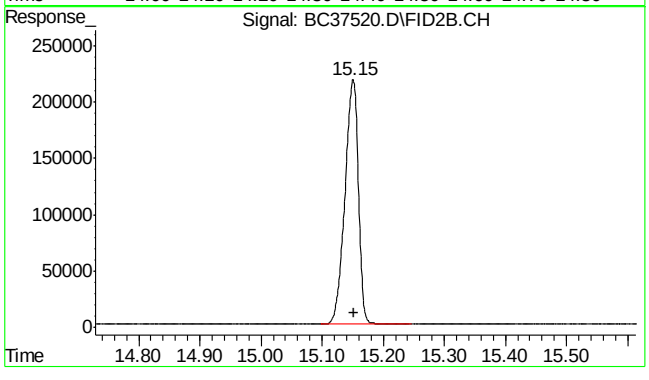
#32 c-18

R.T.: 13.558 min
Delta R.T.: 0.000 min
Response: 337443
Conc: 49.77 ppm



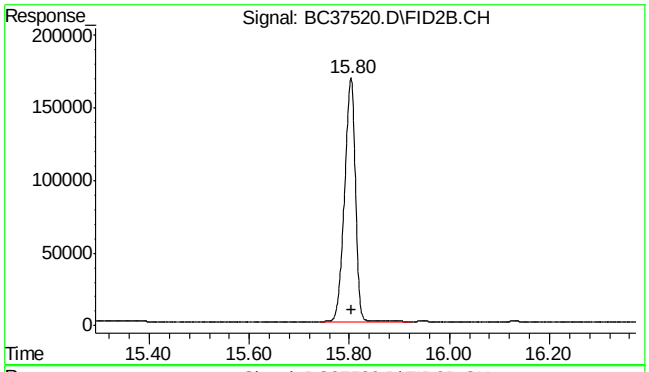
#33 c-19

R.T.: 14.373 min
Delta R.T.: 0.000 min
Response: 332055
Conc: 58.85 ppm



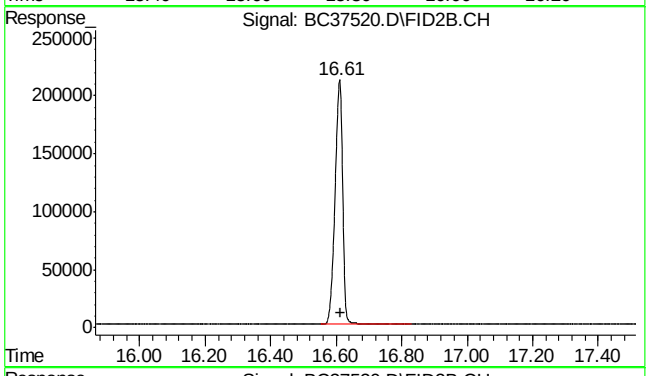
#34 c-20

R.T.: 15.150 min
Delta R.T.: -0.002 min
Response: 332231
Conc: 58.88 ppm



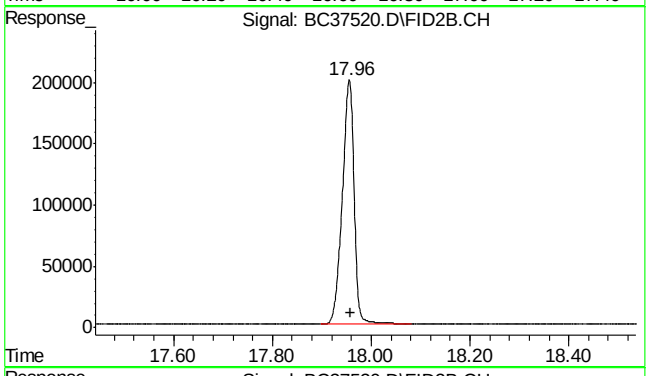
#35 1-chlorooctadecane

R.T.: 15.803 min
Delta R.T.: -0.001 min
Response: 252801
Conc: 55.80 ppm



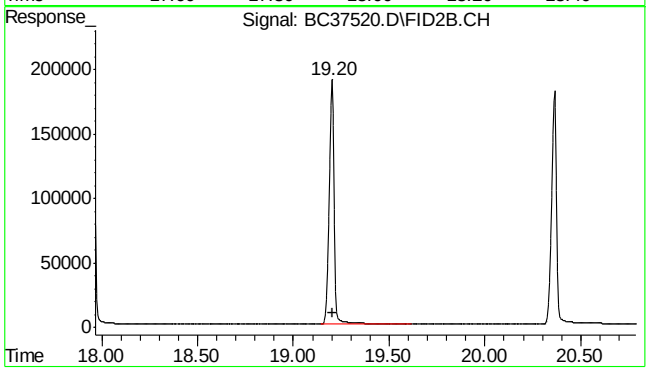
#36 c-22

R.T.: 16.610 min
Delta R.T.: -0.001 min
Response: 338707
Conc: 60.03 ppm



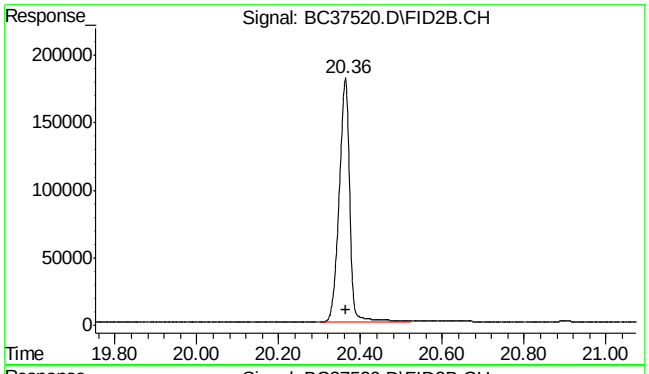
#37 c-24

R.T.: 17.955 min
Delta R.T.: -0.002 min
Response: 331632
Conc: 58.78 ppm



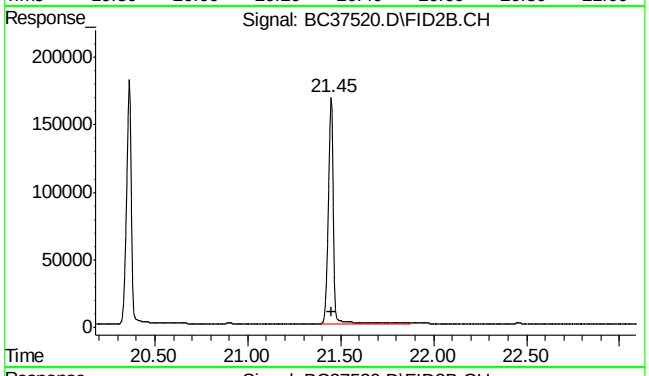
#38 c-26

R.T.: 19.202 min
Delta R.T.: 0.000 min
Response: 336663
Conc: 59.67 ppm



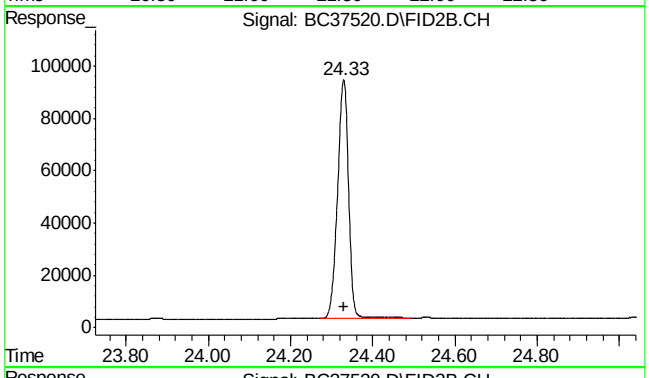
#39 c-28

R.T.: 20.363 min
Delta R.T.: 0.000 min
Response: 321693
Conc: 57.01 ppm



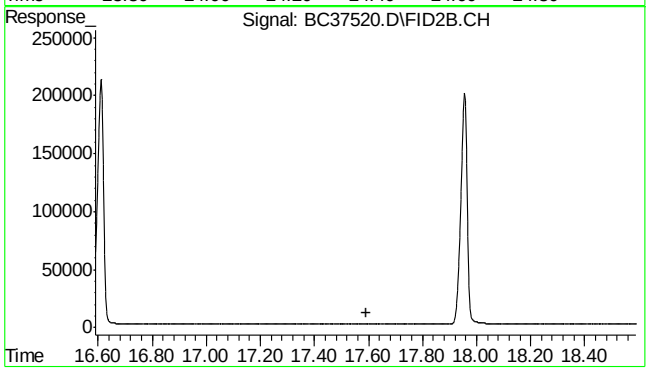
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 312251
Conc: 55.34 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 169093
Conc: 29.97 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

ACCUTEST Laboratories F71731

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37582.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37582.D\FID2B.CH
Acq On : 3-10-10 09:21:06 PM Operator: KimD
Sample : cc1911-50 Inst : GCBC
Misc : op20787,gbc1913,1000,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 08:30:29 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	9.37	293510	52.111 ppm
Spiked Amount	20.000 Range	40 - 140	Recovery	= 260.56%#
6) s	2-bromonaphthalene	10.46	197359	55.396 ppm
Spiked Amount	20.000 Range	40 - 140	Recovery	= 276.98%#
11) s	o-terphenyl	14.23	350700	50.959 ppm
Spiked Amount	20.000 Range	40 - 140	Recovery	= 254.80%#
35) s	1-chlorooctadecane	15.80	256156	56.537 ppm
Spiked Amount	20.000 Range	40 - 140	Recovery	= 282.69%#
	Target Compounds			
2)	naphthalene	7.29	335949	52.532 ppm
3)	2-methylnaphthalene	8.57	329443	53.660 ppm
5)	acenaphthylene	10.22	335389	52.282 ppm
7)	acenaphthene	10.58	348061	50.552 ppm
8)	fluorene	11.53	332583	55.940 ppm
9)	phenanthrene	13.29	338925	56.207 ppm
10)	anthracene	13.37	333843	56.444 ppm
12)	fluoranthene	15.53	342616	55.872 ppm
13)	pyrene	15.92	343194	54.307 ppm
14)	benzo(a)anthracene	18.24	318229	59.149 ppm
15)	chrysene	18.32	342362	58.501 ppm
16)	benzo(b)fluoranthene	20.18	326960	64.085 ppm
17)	benzo(k)fluoranthene	20.23	325777	59.740 ppm
18)	benzo(a)pyrene	20.69	330736	64.605 ppm
19)	indeno(1,2,3-cd)pyrene	22.38	288288	62.944 ppm
20)	dibenzo(ah)anthracene	22.44	289206	75.031 ppm
21)	benzo(ghi)perylene	22.72	280816	60.814 ppm
25) h	c-9	3.81	321993	47.487 ppm
26) h	c-10	5.18	325817	48.050 ppm
27)	naphthalene #2	7.51	341753	45.432 ppm
28)	c-12	7.69	340100	50.157 ppm
29)	2-methylnaphthalene #2	8.77	330761	48.788 ppm
30)	c-14	9.87	316745	46.713 ppm
31)	c-16	11.81	319101	47.060 ppm
32)	c-18	13.55	324374	47.838 ppm
33)	c-19	14.37	321816	57.037 ppm
34)	c-20	15.15	320292	56.767 ppm
36)	c-22	16.61	324321	57.481 ppm
37)	c-24	17.95	325065	57.613 ppm
38)	c-26	19.20	319975	56.710 ppm
39)	c-28	20.36	317109	56.202 ppm
40) h	c-30	21.45	312286	55.348 ppm
41) h	c-36	24.33	219620	38.924 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37582.D EPH031010.M Thu Mar 11 11:29:29 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37582.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37582.D\FID2B.CH
Acq On    : 3-10-10 09:21:06 PM                      Operator: KimD
Sample    : cc1911-50                                Inst    : GCBC
Misc      : op20787,gbc1913,1000,,,2,,               Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 11 08:30:29 2010  Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
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10.5.9

10

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-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37582.D  EPH031010.M      Thu Mar 11 11:29:30 2010      RPGEN1
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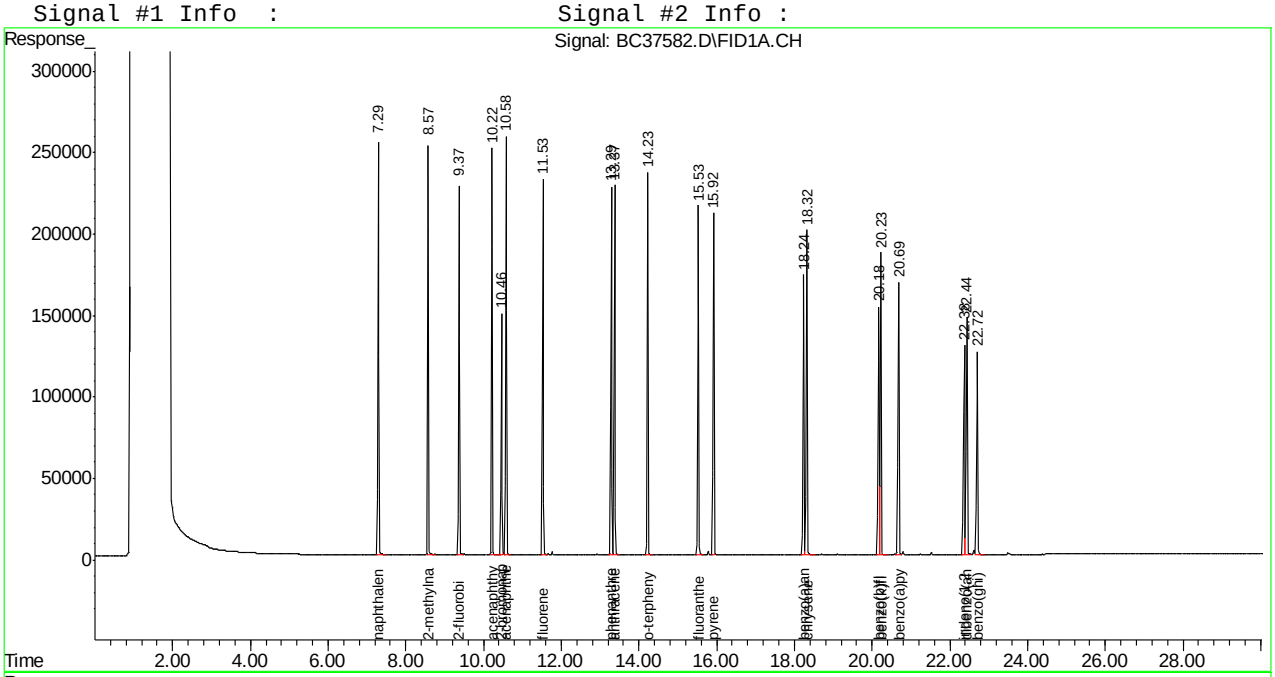
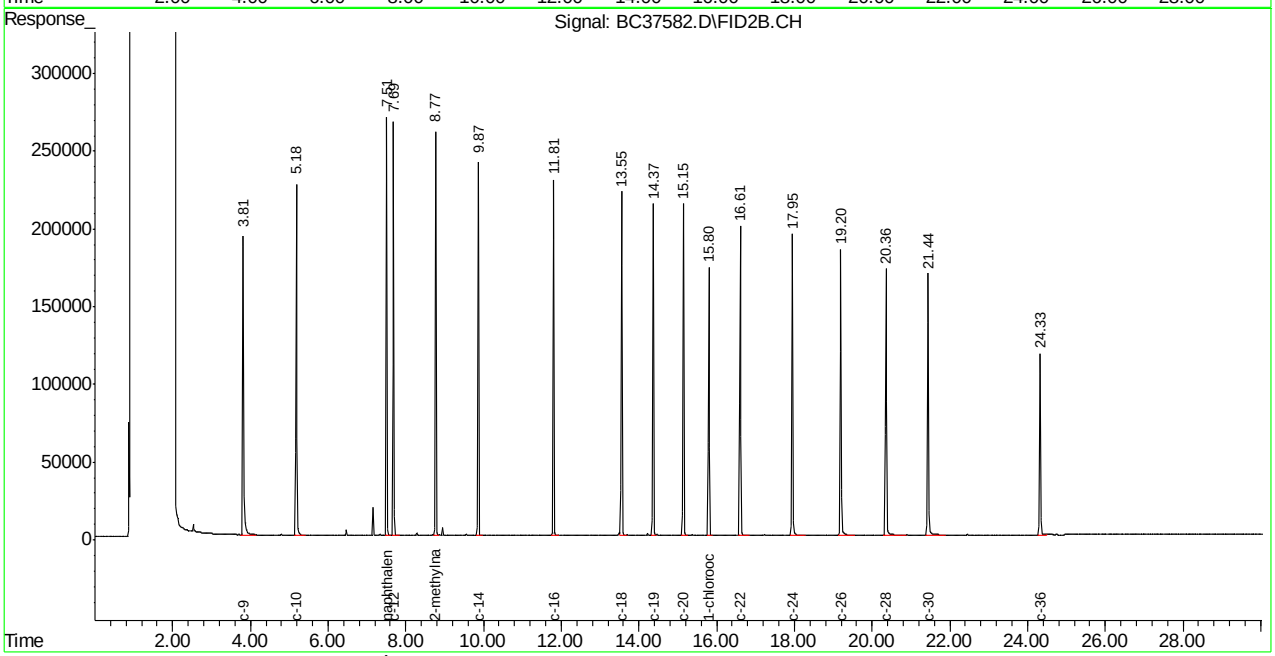
Quantitation Report (QT Reviewed)

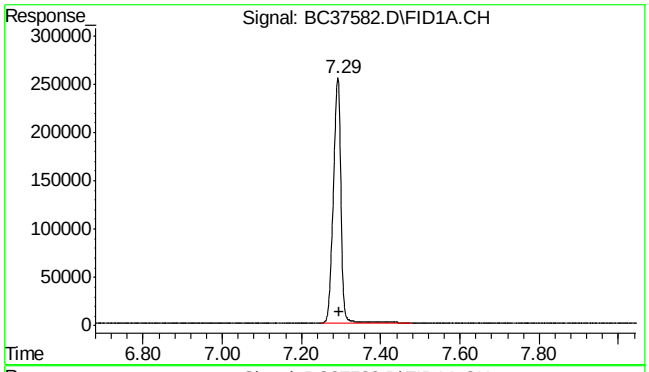
Signal #1 : C:\MSDCHEM\1\DATA\BC37582.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37582.D\FID2B.CH
Acq On : 3-10-10 09:21:06 PM Operator: KimD
Sample : cc1911-50 Inst : GCBC
Misc : op20787,gbc1913,1000,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 9:03 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

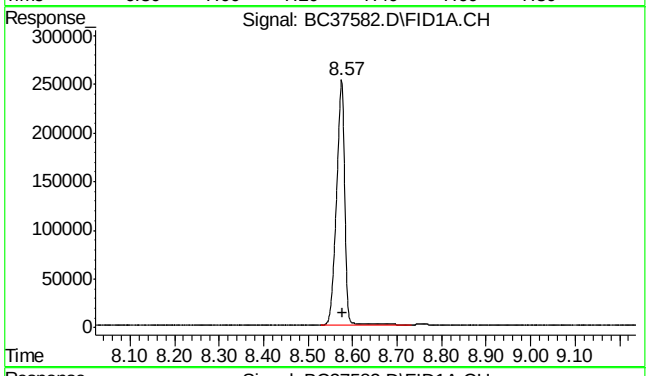






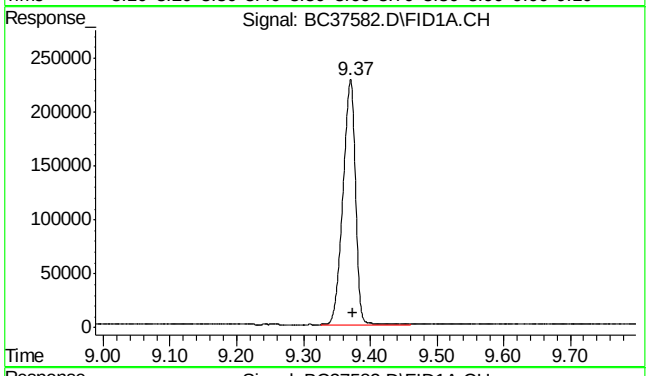
#2 naphthalene

R.T.: 7.292 min
Delta R.T.: -0.003 min
Response: 335949
Conc: 52.53 ppm



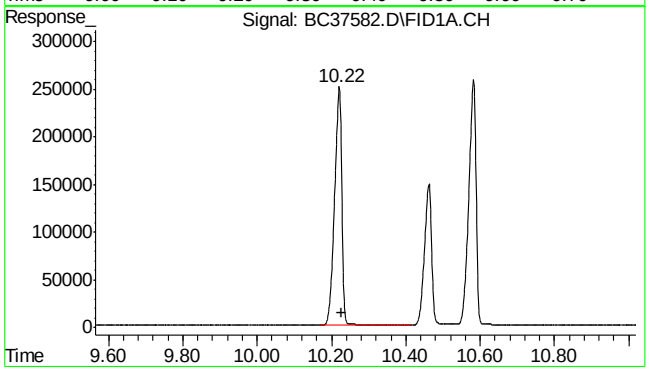
#3 2-methylnaphthalene

R.T.: 8.575 min
Delta R.T.: -0.004 min
Response: 329443
Conc: 53.66 ppm



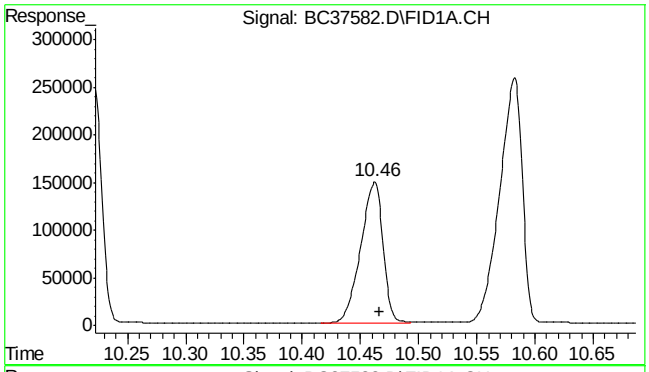
#4 2-fluorobiphenyl

R.T.: 9.371 min
Delta R.T.: -0.003 min
Response: 293510
Conc: 52.11 ppm



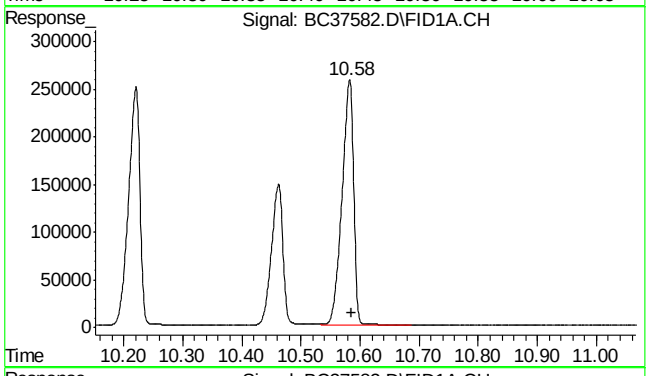
#5 acenaphthylene

R.T.: 10.221 min
Delta R.T.: -0.005 min
Response: 335389
Conc: 52.28 ppm



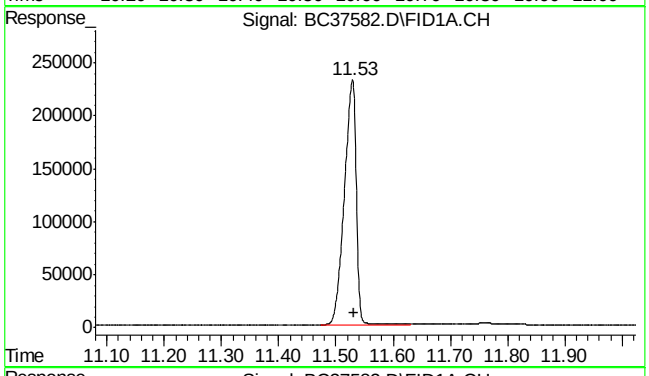
#6 2-bromonaphthalene

R.T.: 10.462 min
Delta R.T.: -0.004 min
Response: 197359
Conc: 55.40 ppm



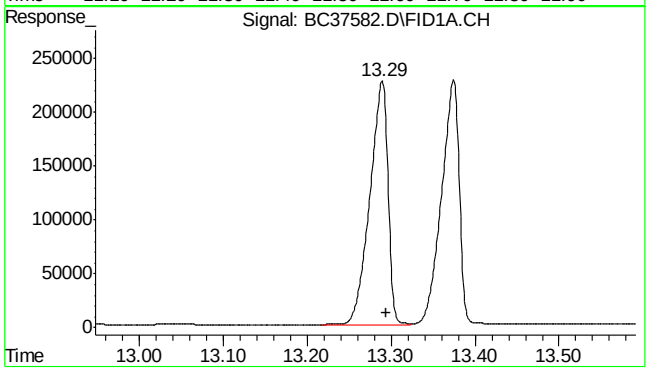
#7 acenaphthene

R.T.: 10.582 min
Delta R.T.: -0.004 min
Response: 348061
Conc: 50.55 ppm



#8 fluorene

R.T.: 11.529 min
Delta R.T.: -0.003 min
Response: 332583
Conc: 55.94 ppm



#9 phenanthrene

R.T.: 13.289 min
Delta R.T.: -0.005 min
Response: 338925
Conc: 56.21 ppm

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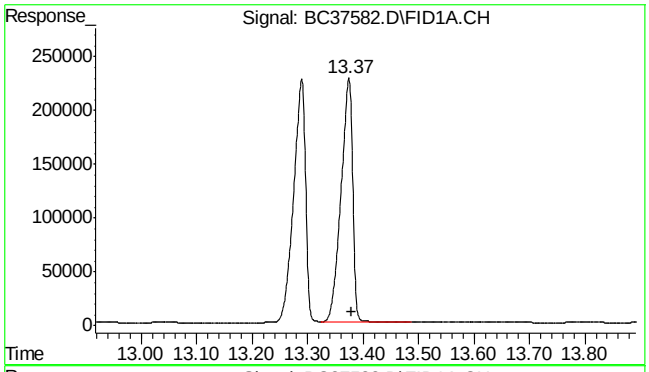
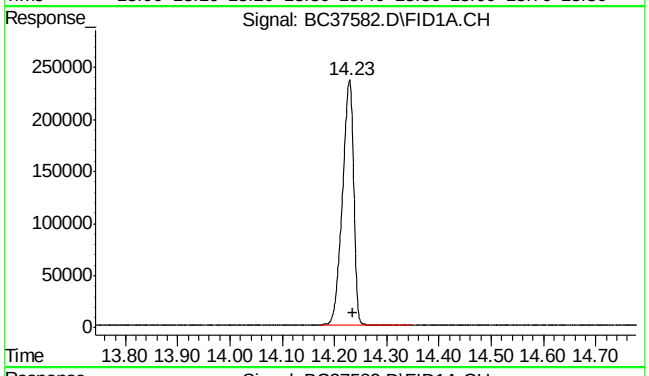


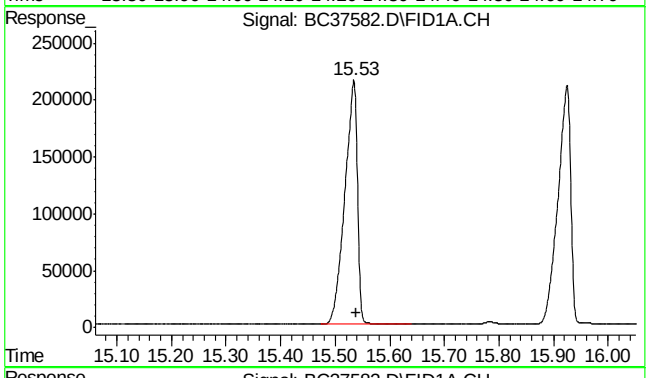
#10 anthracene

R.T.: 13.374 min
Delta R.T.: -0.005 min
Response: 333843
Conc: 56.44 ppm



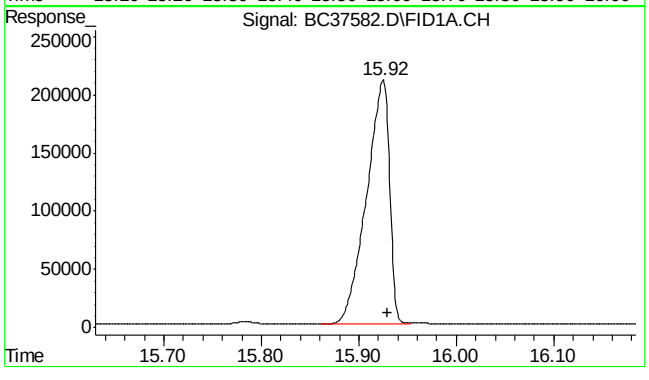
#11 o-terphenyl

R.T.: 14.229 min
Delta R.T.: -0.005 min
Response: 350700
Conc: 50.96 ppm



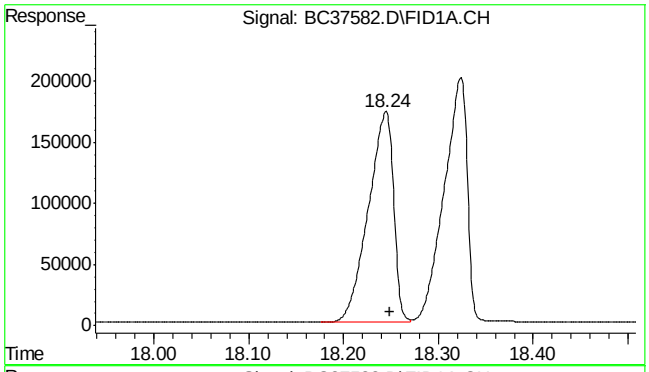
#12 fluoranthene

R.T.: 15.534 min
Delta R.T.: -0.005 min
Response: 342616
Conc: 55.87 ppm



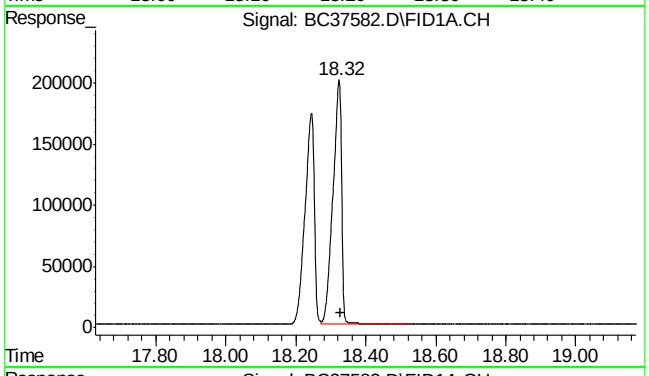
#13 pyrene

R.T.: 15.925 min
Delta R.T.: -0.005 min
Response: 343194
Conc: 54.31 ppm



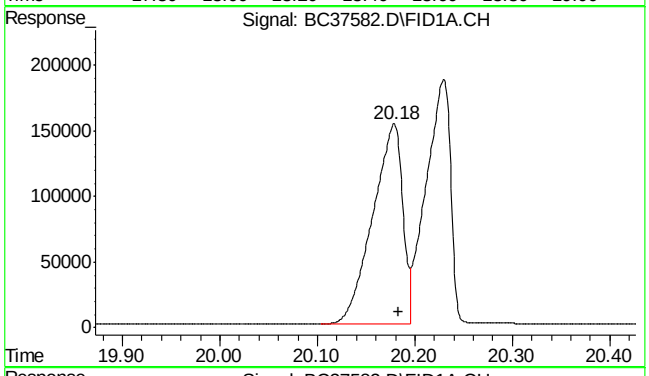
#14 benzo(a)anthracene

R.T.: 18.244 min
Delta R.T.: -0.005 min
Response: 318229
Conc: 59.15 ppm



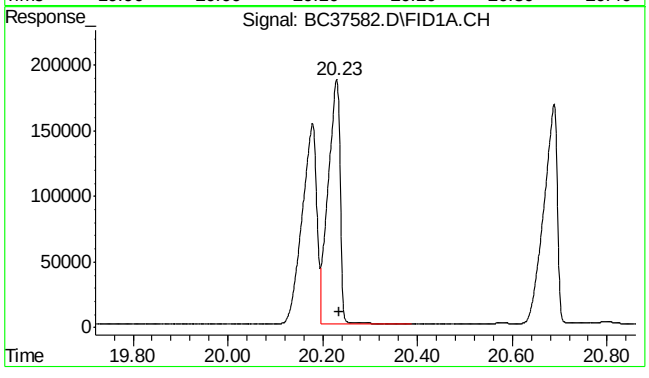
#15 chrysene

R.T.: 18.323 min
Delta R.T.: -0.005 min
Response: 342362
Conc: 58.50 ppm



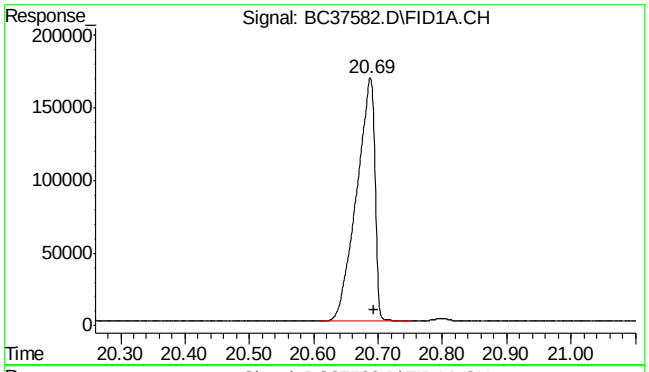
#16 benzo(b)fluoranthene

R.T.: 20.178 min
Delta R.T.: -0.005 min
Response: 326960
Conc: 64.09 ppm



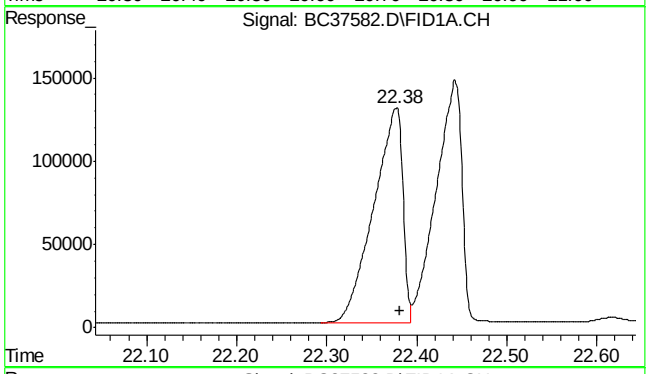
#17 benzo(k)fluoranthene

R.T.: 20.230 min
Delta R.T.: -0.005 min
Response: 325777
Conc: 59.74 ppm



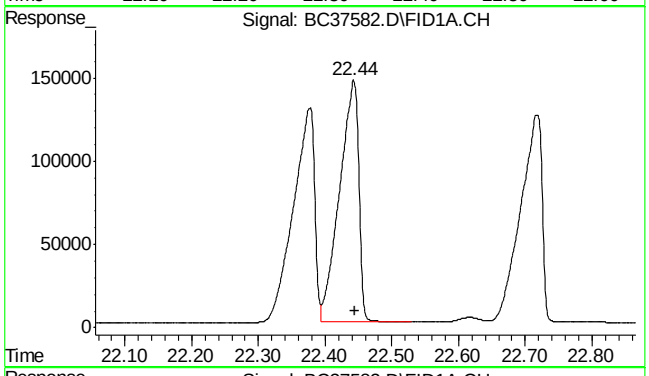
#18 benzo(a)pyrene

R.T.: 20.687 min
Delta R.T.: -0.006 min
Response: 330736
Conc: 64.60 ppm



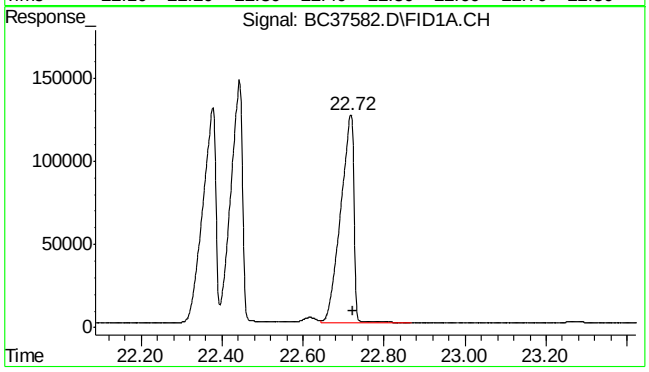
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.378 min
Delta R.T.: -0.003 min
Response: 288288
Conc: 62.94 ppm



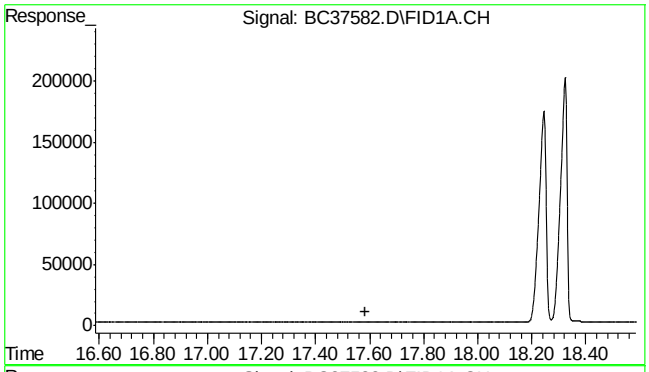
#20 dibenzo(ah)anthracene

R.T.: 22.442 min
Delta R.T.: -0.002 min
Response: 289206
Conc: 75.03 ppm



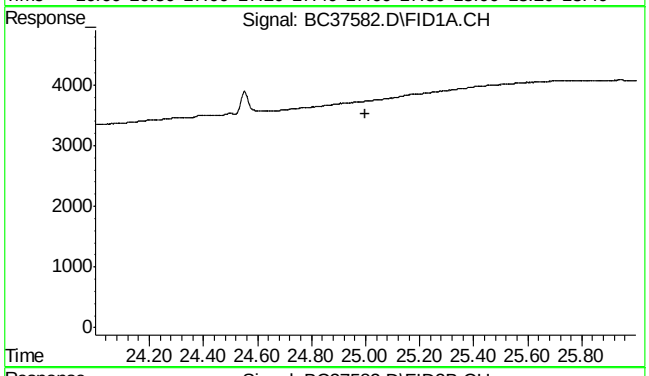
#21 benzo(ghi)perylene

R.T.: 22.716 min
Delta R.T.: -0.007 min
Response: 280816
Conc: 60.81 ppm



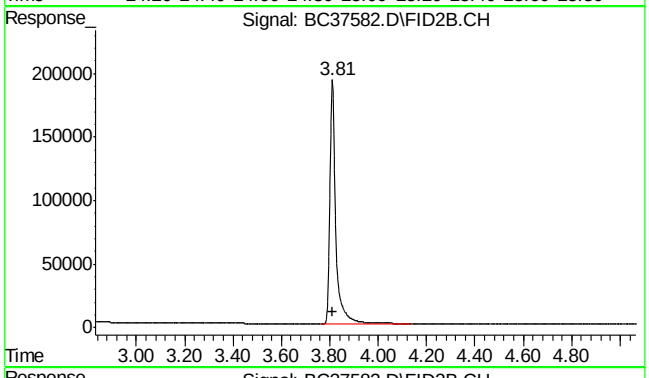
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



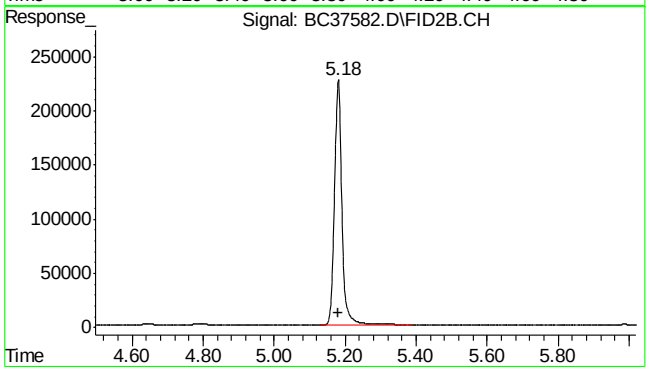
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



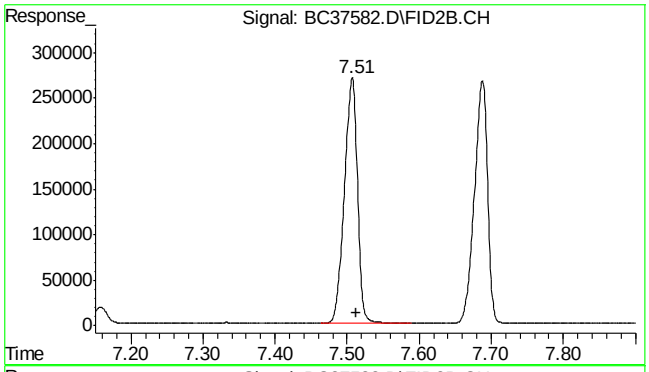
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 321993
Conc: 47.49 ppm m



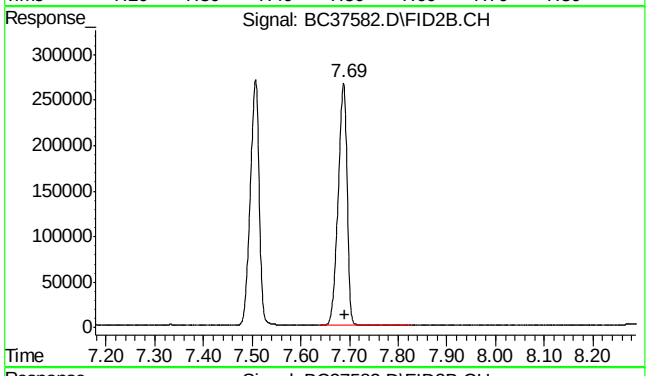
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 325817
Conc: 48.05 ppm m



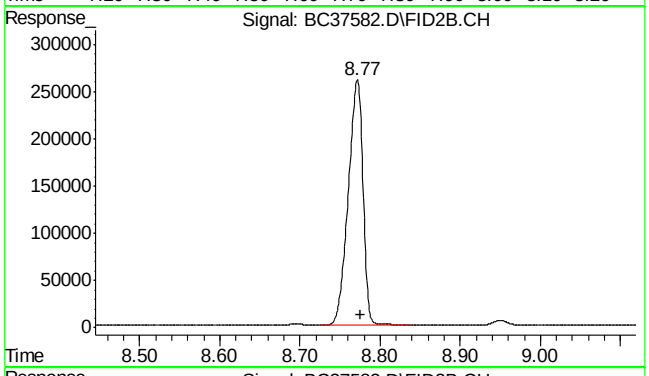
#27 naphthalene #2

R.T.: 7.507 min
Delta R.T.: -0.005 min
Response: 341753
Conc: 45.43 ppm



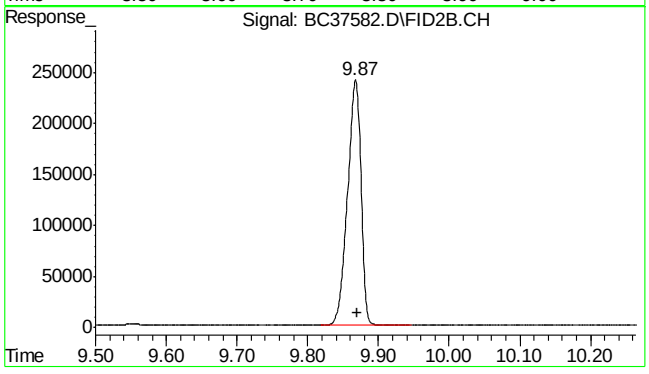
#28 c-12

R.T.: 7.687 min
Delta R.T.: -0.002 min
Response: 340100
Conc: 50.16 ppm



#29 2-methylnaphthalene #2

R.T.: 8.772 min
Delta R.T.: -0.004 min
Response: 330761
Conc: 48.79 ppm



#30 c-14

R.T.: 9.867 min
Delta R.T.: -0.003 min
Response: 316745
Conc: 46.71 ppm

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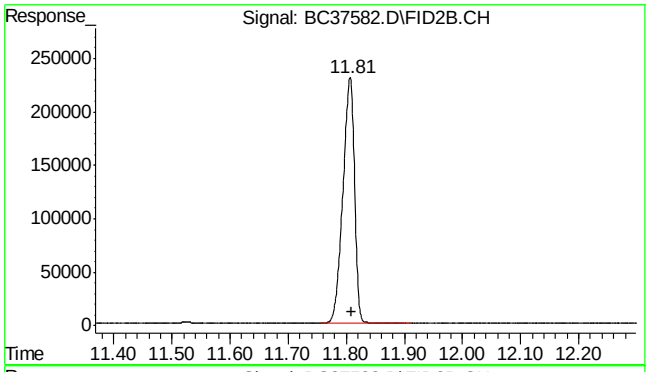
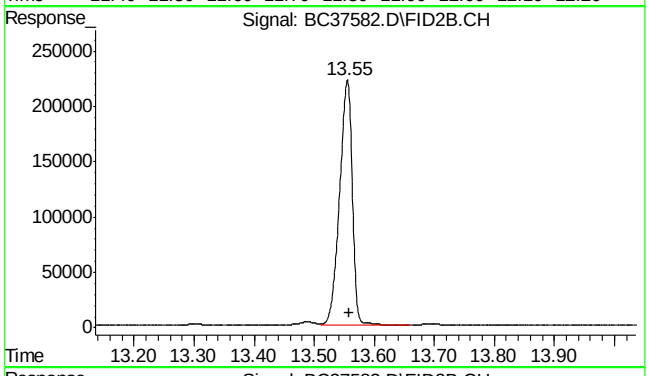


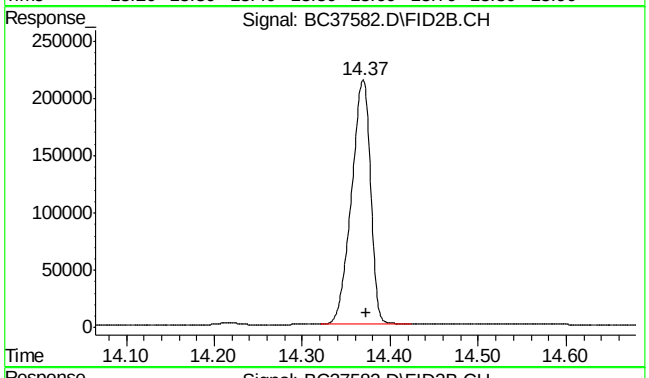
#31 c-16

R.T.: 11.807 min
Delta R.T.: -0.003 min
Response: 319101
Conc: 47.06 ppm



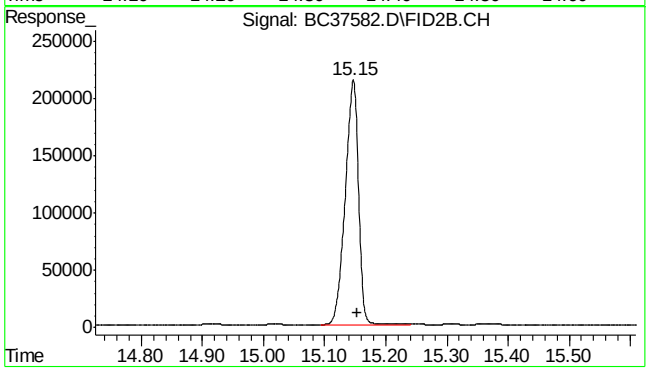
#32 c-18

R.T.: 13.555 min
Delta R.T.: -0.004 min
Response: 324374
Conc: 47.84 ppm



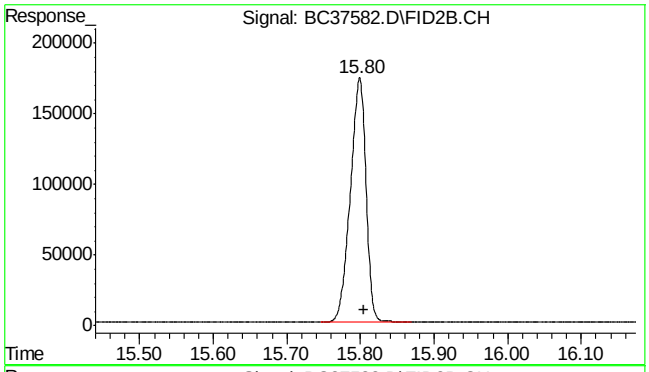
#33 c-19

R.T.: 14.369 min
Delta R.T.: -0.004 min
Response: 321816
Conc: 57.04 ppm



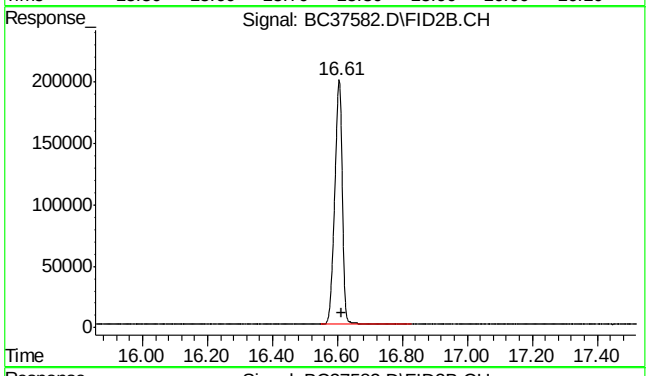
#34 c-20

R.T.: 15.147 min
Delta R.T.: -0.006 min
Response: 320292
Conc: 56.77 ppm



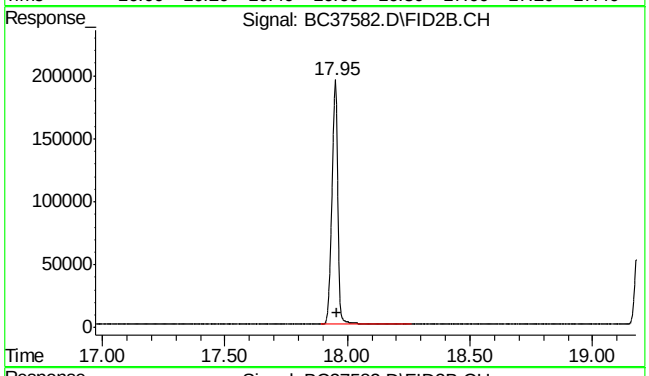
#35 1-chlorooctadecane

R.T.: 15.799 min
Delta R.T.: -0.006 min
Response: 256156
Conc: 56.54 ppm



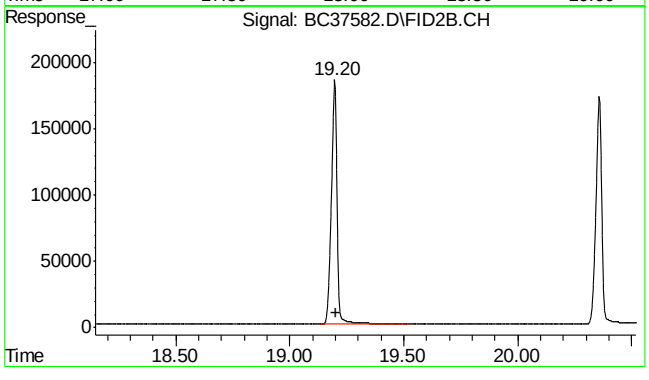
#36 c-22

R.T.: 16.606 min
Delta R.T.: -0.006 min
Response: 324321
Conc: 57.48 ppm



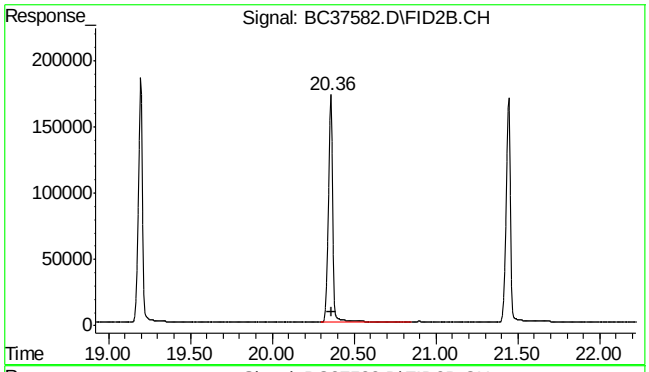
#37 c-24

R.T.: 17.951 min
Delta R.T.: -0.007 min
Response: 325065
Conc: 57.61 ppm



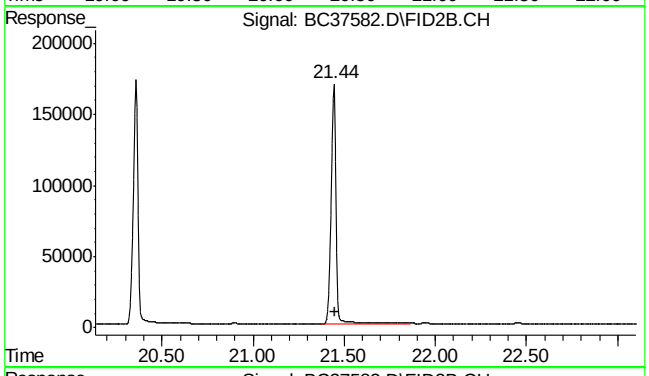
#38 c-26

R.T.: 19.197 min
Delta R.T.: -0.005 min
Response: 319975
Conc: 56.71 ppm



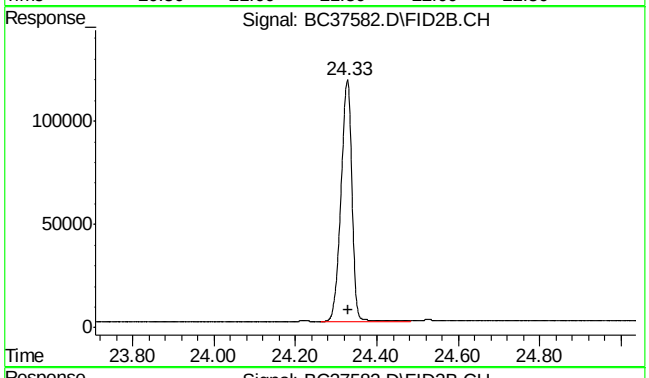
#39 c-28

R.T.: 20.358 min
Delta R.T.: -0.006 min
Response: 317109
Conc: 56.20 ppm



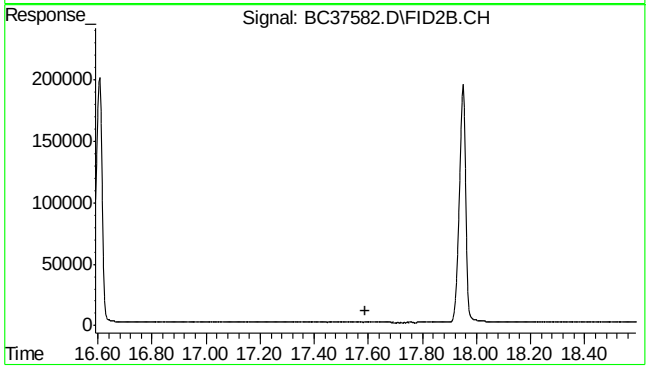
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 312286
Conc: 55.35 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 219620
Conc: 38.92 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37593.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37593.D\FID2B.CH
Acq On : 3-11-10 04:35:38 AM Operator: KimD
Sample : cc1911-50 Inst : GCBC
Misc : op20804,gbc1913,11.20,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 08:33:58 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	286884	50.935 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 254.68%#	
6) s 2-bromonaphthalene	10.46	193212	54.232 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 271.16%#	
11) s o-terphenyl	14.23	344117	50.002 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 250.01%#	
35) s 1-chlorooctadecane	15.80	258522	57.059 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 285.29%#	
Target Compounds			
2) naphthalene	7.29	326878	51.113 ppm
3) 2-methylnaphthalene	8.57	321550	52.375 ppm
5) acenaphthylene	10.22	327791	51.098 ppm
7) acenaphthene	10.58	340637	49.474 ppm
8) fluorene	11.53	325130	54.686 ppm
9) phenanthrene	13.29	331983	55.056 ppm
10) anthracene	13.37	326932	55.276 ppm
12) fluoranthene	15.53	335695	54.743 ppm
13) pyrene	15.92	336194	53.200 ppm
14) benzo(a)anthracene	18.24	311718	57.959 ppm
15) chrysene	18.32	335664	57.357 ppm
16) benzo(b)fluoranthene	20.18	315452	61.830 ppm
17) benzo(k)fluoranthene	20.23	323589	59.339 ppm
18) benzo(a)pyrene	20.69	323865	63.263 ppm
19) indeno(1,2,3-cd)pyrene	22.38	282418	61.642 ppm
20) dibenzo(ah)anthracene	22.44	281071	72.776 ppm
21) benzo(ghi)perylene	22.72	273364	58.976 ppm
25) h c-9	3.81	321752	47.451 ppm
26) h c-10	5.18	325992	48.076 ppm
27) naphthalene #2	7.51	341166	45.354 ppm
28) c-12	7.69	340509	50.217 ppm
29) 2-methylnaphthalene #2	8.77	330489	48.748 ppm
30) c-14	9.87	317197	46.779 ppm
31) c-16	11.81	319545	47.125 ppm
32) c-18	13.56	324509	47.858 ppm
33) c-19	14.37	322193	57.104 ppm
34) c-20	15.15	320586	56.819 ppm
36) c-22	16.61	324809	57.567 ppm
37) c-24	17.95	325714	57.728 ppm
38) c-26	19.20	321564	56.992 ppm
39) c-28	20.36	311368	55.185 ppm
40) h c-30	21.45	316031	56.011 ppm
41) h c-36	24.33	226816	40.199 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37593.D EPH031010.M Thu Mar 11 14:08:46 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37593.D\FID1A.CH         Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37593.D\FID2B.CH
Acq On    : 3-11-10 04:35:38 AM                      Operator: KimD
Sample    : cc1911-50                                Inst    : GCBC
Misc      : op20804,gbc1913,11.20,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 11 08:33:58 2010  Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.10

10

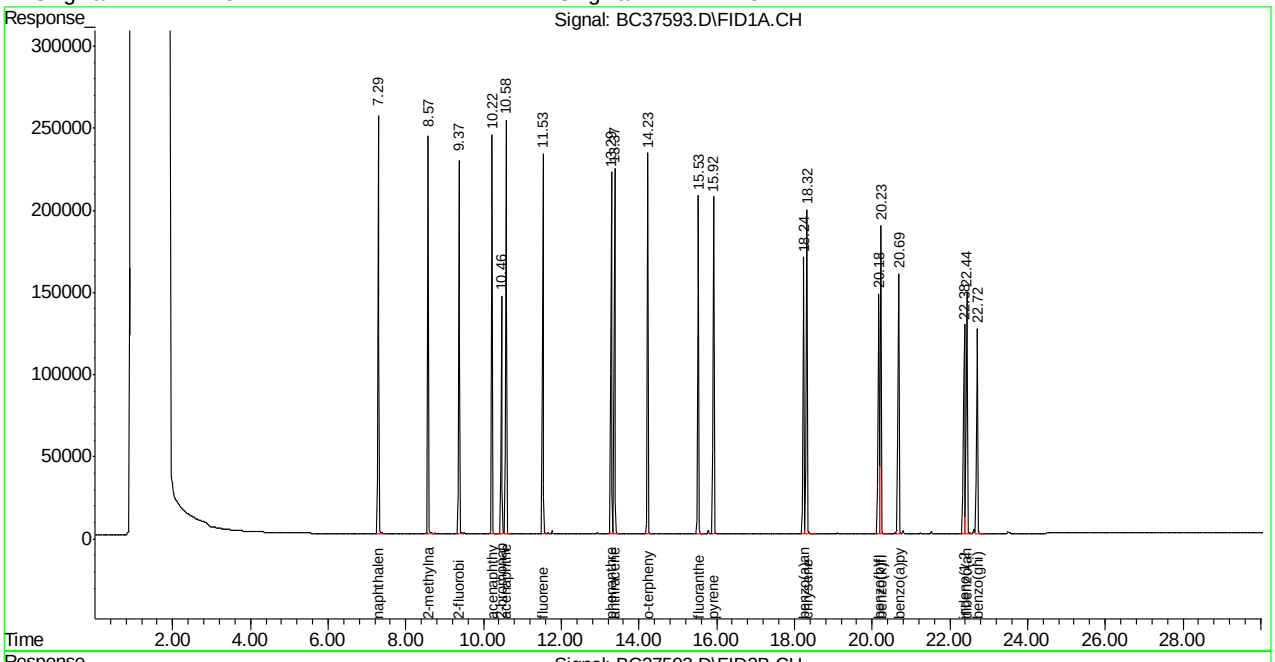
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37593.D  EPH031010.M      Thu Mar 11 14:08:46 2010      RPGEN1
```

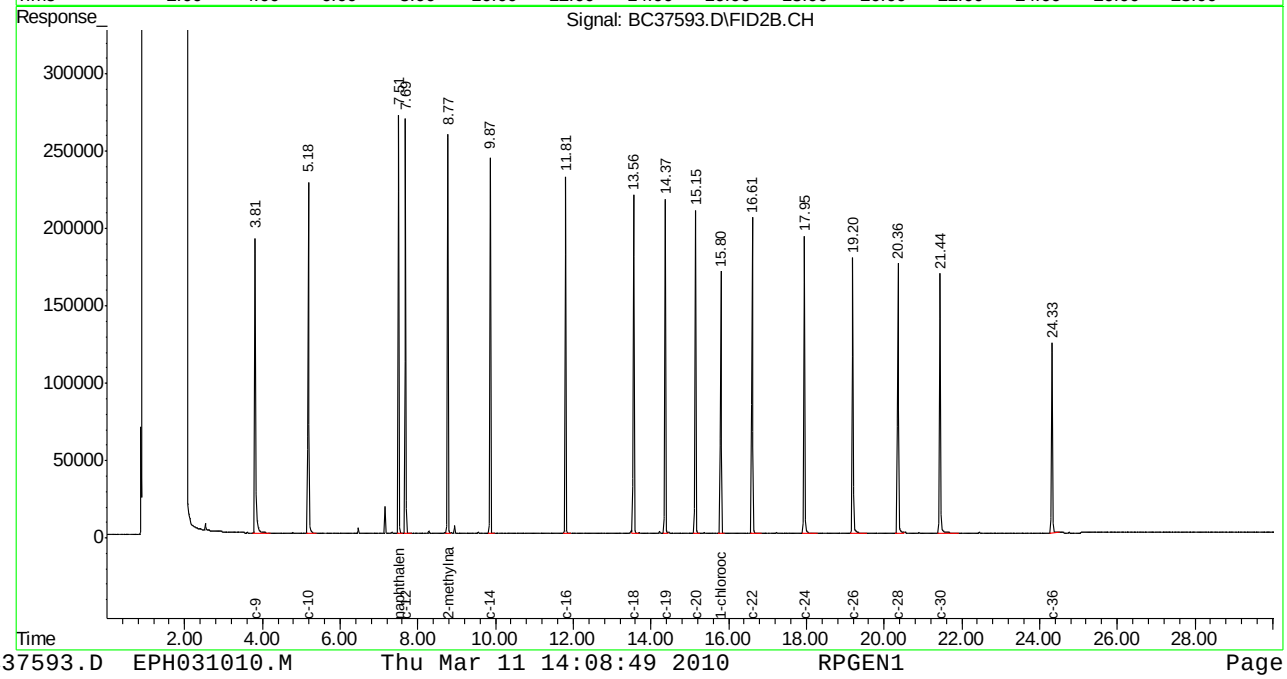
Quantitation Report (QT Reviewed)

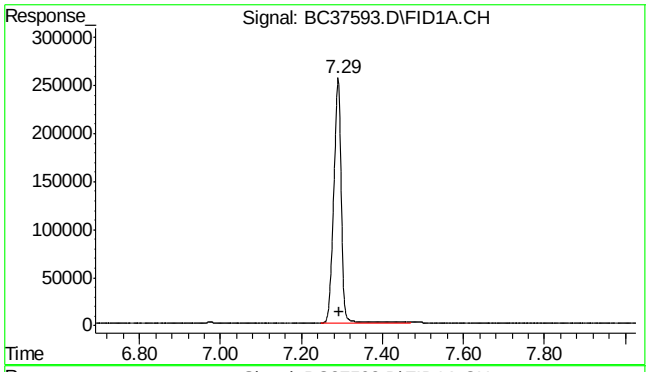
Signal #1 : C:\MSDCHEM\1\DATA\BC37593.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37593.D\FID2B.CH
Acq On : 3-11-10 04:35:38 AM Operator: KimD
Sample : cc1911-50 Inst : GCBC
Misc : op20804,gbc1913,11.20,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 10:55 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

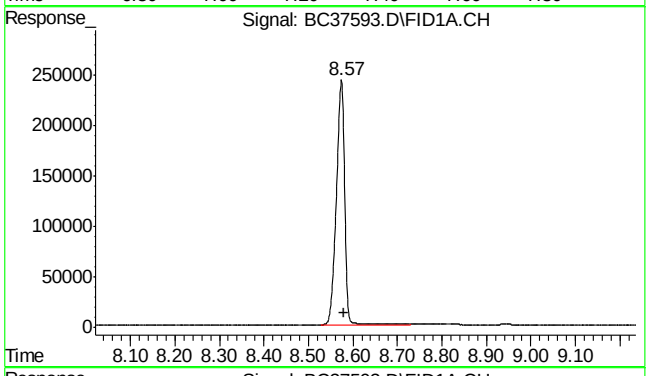






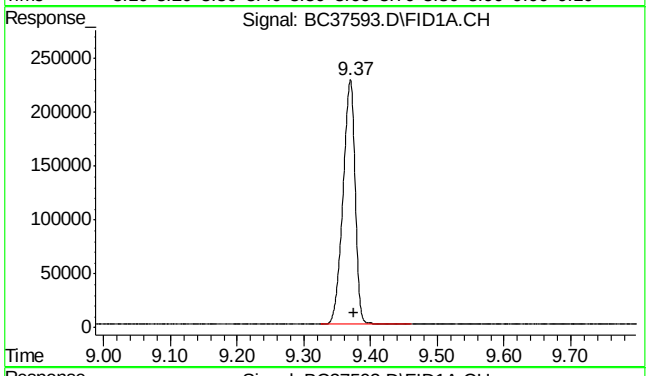
#2 naphthalene

R.T.: 7.291 min
Delta R.T.: -0.004 min
Response: 326878
Conc: 51.11 ppm



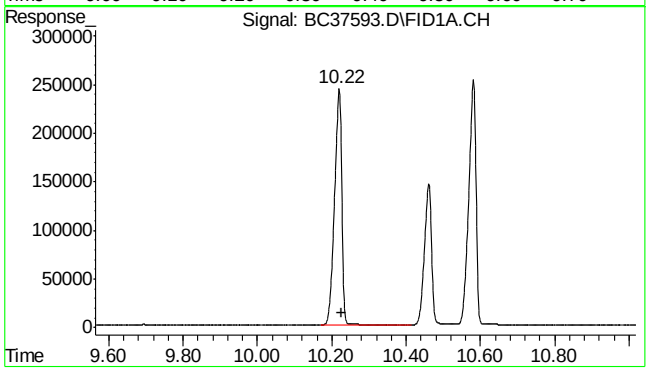
#3 2-methylnaphthalene

R.T.: 8.574 min
Delta R.T.: -0.005 min
Response: 321550
Conc: 52.37 ppm



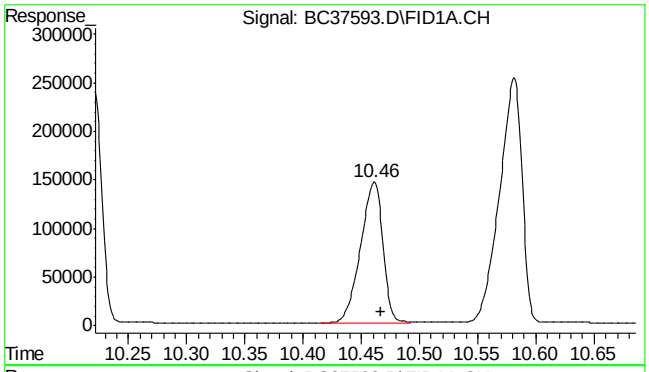
#4 2-fluorobiphenyl

R.T.: 9.369 min
Delta R.T.: -0.005 min
Response: 286884
Conc: 50.93 ppm



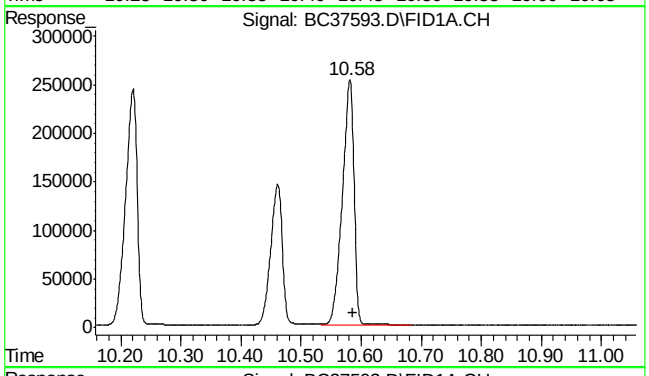
#5 acenaphthylene

R.T.: 10.220 min
Delta R.T.: -0.006 min
Response: 327791
Conc: 51.10 ppm



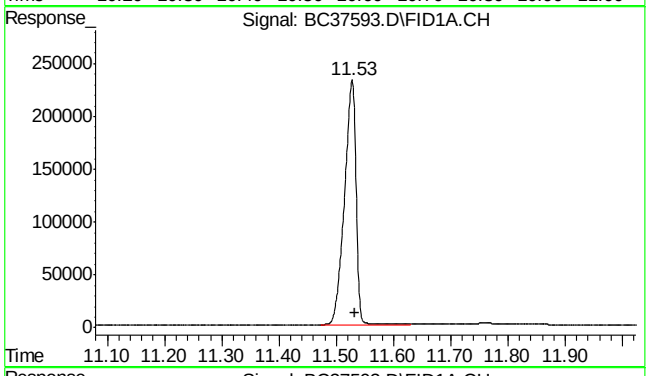
#6 2-bromonaphthalene

R.T.: 10.461 min
Delta R.T.: -0.006 min
Response: 193212
Conc: 54.23 ppm



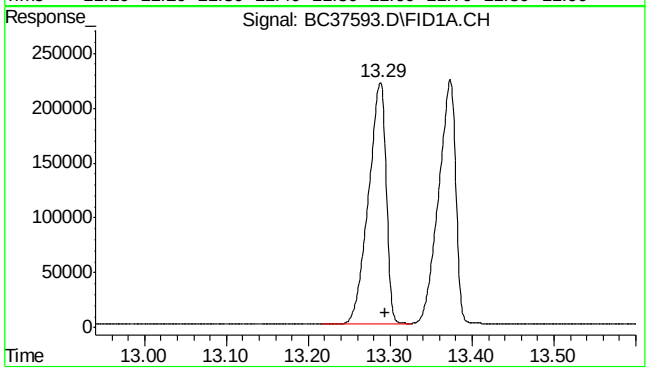
#7 acenaphthene

R.T.: 10.581 min
Delta R.T.: -0.006 min
Response: 340637
Conc: 49.47 ppm



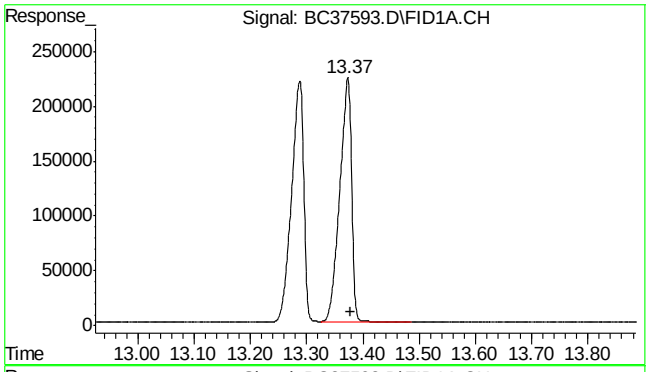
#8 fluorene

R.T.: 11.528 min
Delta R.T.: -0.005 min
Response: 325130
Conc: 54.69 ppm



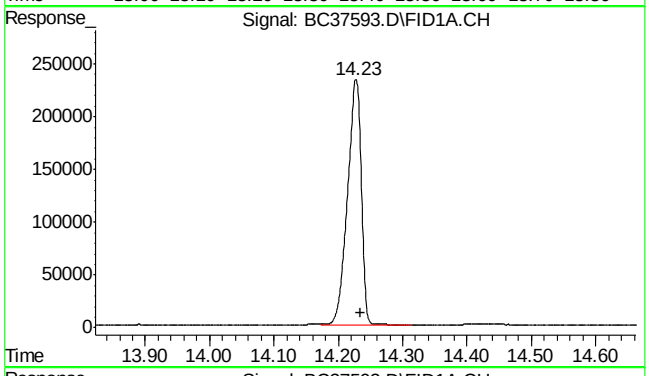
#9 phenanthrene

R.T.: 13.288 min
Delta R.T.: -0.006 min
Response: 331983
Conc: 55.06 ppm



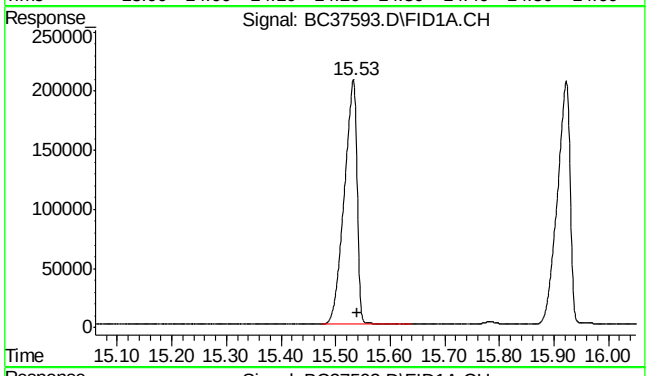
#10 anthracene

R.T.: 13.373 min
Delta R.T.: -0.007 min
Response: 326932
Conc: 55.28 ppm



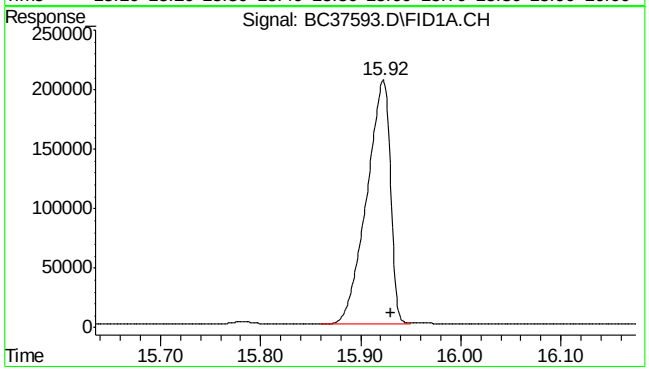
#11 o-terphenyl

R.T.: 14.228 min
Delta R.T.: -0.007 min
Response: 344117
Conc: 50.00 ppm



#12 fluoranthene

R.T.: 15.533 min
Delta R.T.: -0.007 min
Response: 335695
Conc: 54.74 ppm



#13 pyrene

R.T.: 15.923 min
Delta R.T.: -0.007 min
Response: 336194
Conc: 53.20 ppm

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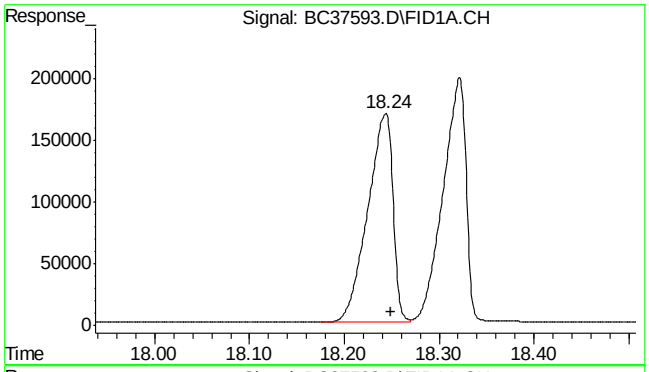
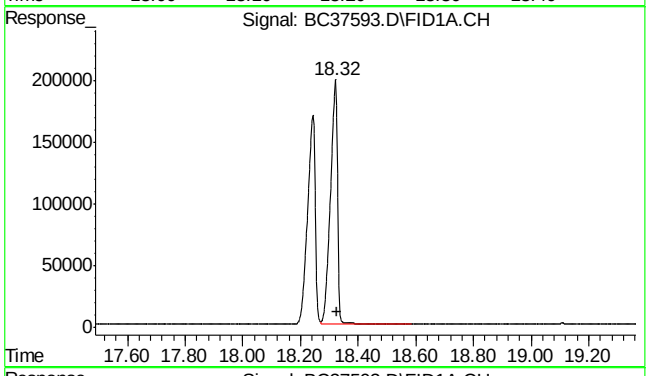


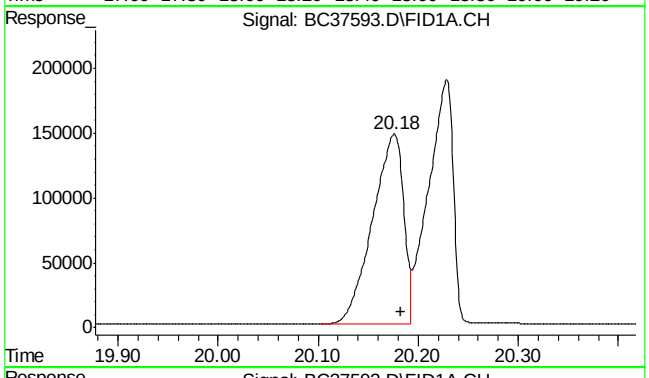
#14 benzo(a)anthracene

R.T.: 18.244 min
Delta R.T.: -0.005 min
Response: 311718
Conc: 57.96 ppm



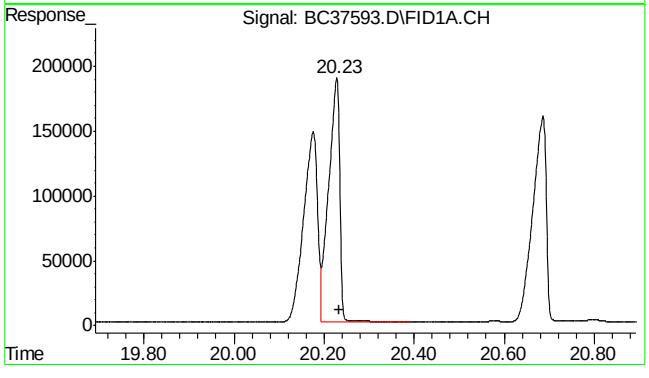
#15 chrysene

R.T.: 18.321 min
Delta R.T.: -0.007 min
Response: 335664
Conc: 57.36 ppm



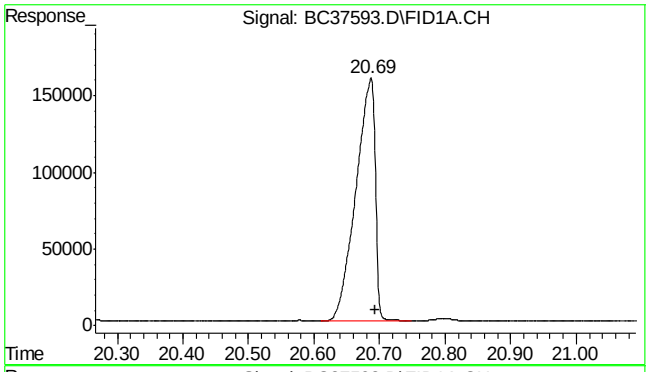
#16 benzo(b)fluoranthene

R.T.: 20.176 min
Delta R.T.: -0.007 min
Response: 315452
Conc: 61.83 ppm



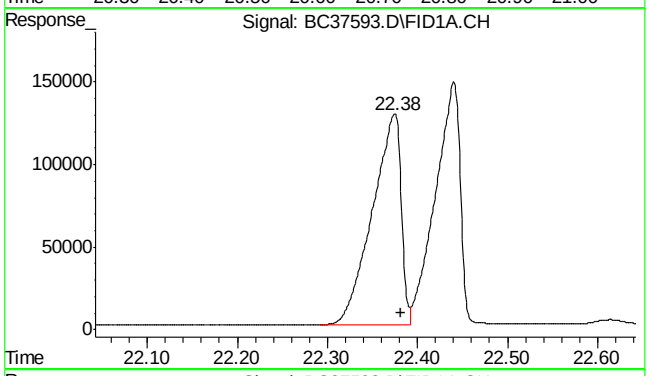
#17 benzo(k)fluoranthene

R.T.: 20.228 min
Delta R.T.: -0.007 min
Response: 323589
Conc: 59.34 ppm



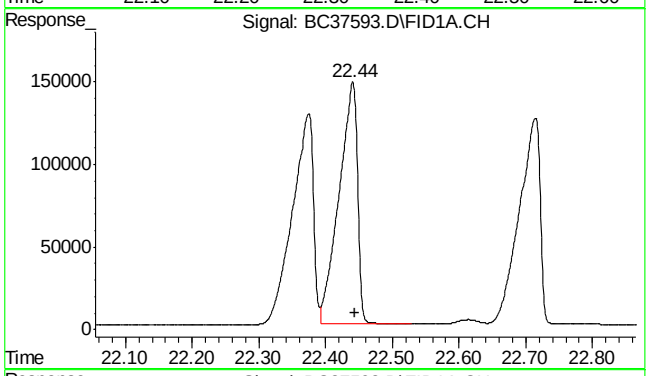
#18 benzo(a)pyrene

R.T.: 20.687 min
Delta R.T.: -0.007 min
Response: 323865
Conc: 63.26 ppm



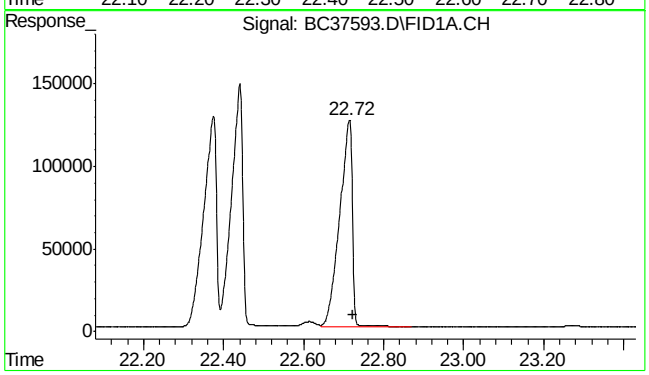
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.375 min
Delta R.T.: -0.007 min
Response: 282418
Conc: 61.64 ppm



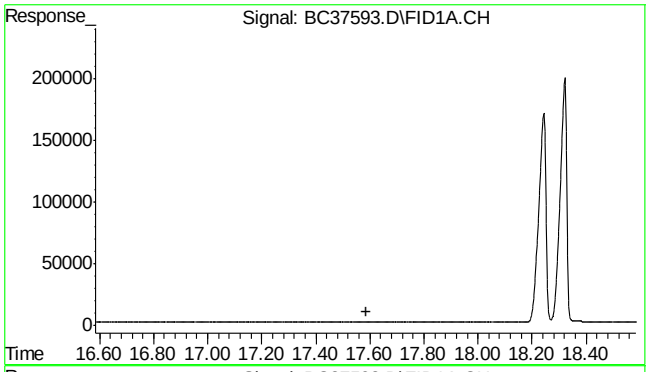
#20 dibenzo(ah)anthracene

R.T.: 22.440 min
Delta R.T.: -0.004 min
Response: 281071
Conc: 72.78 ppm



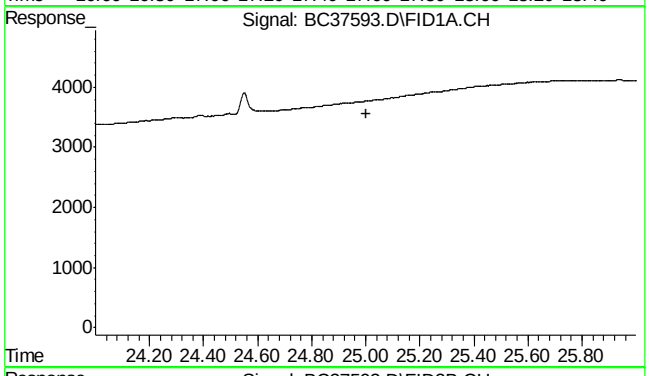
#21 benzo(ghi)perylene

R.T.: 22.715 min
Delta R.T.: -0.007 min
Response: 273364
Conc: 58.98 ppm



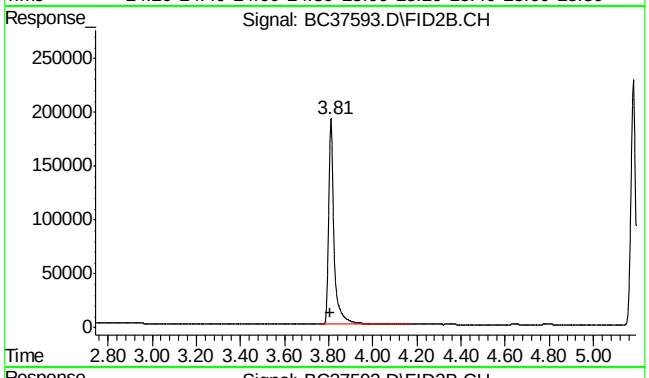
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



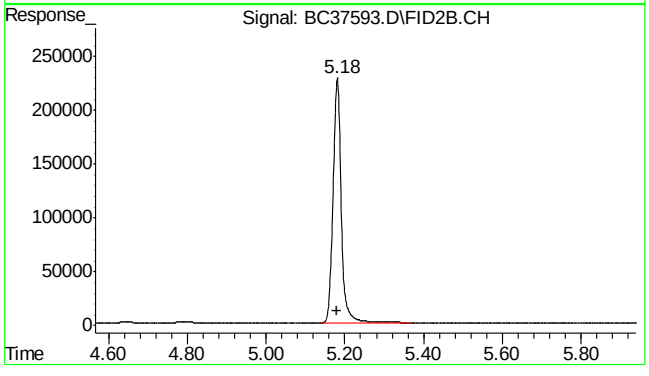
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



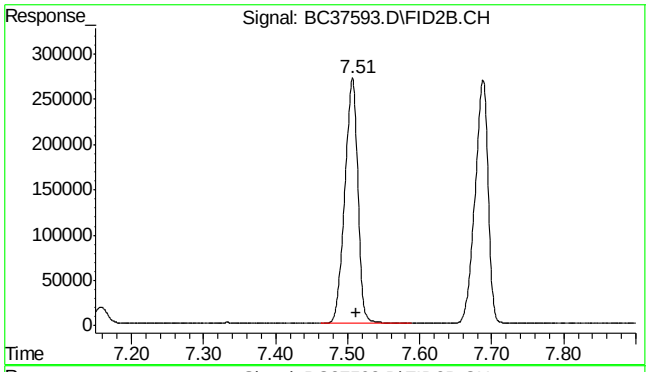
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 321752
Conc: 47.45 ppm m



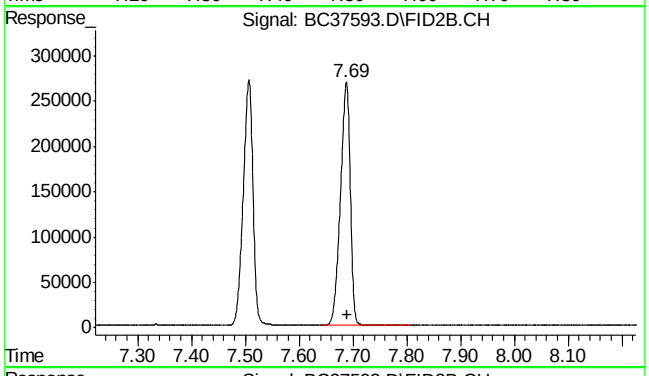
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 325992
Conc: 48.08 ppm m



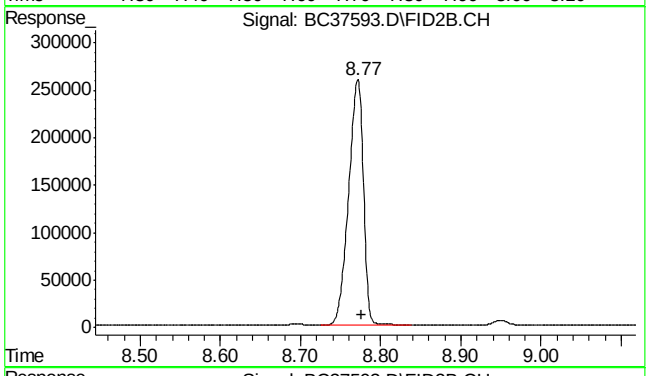
#27 naphthalene #2

R.T.: 7.507 min
Delta R.T.: -0.005 min
Response: 341166
Conc: 45.35 ppm



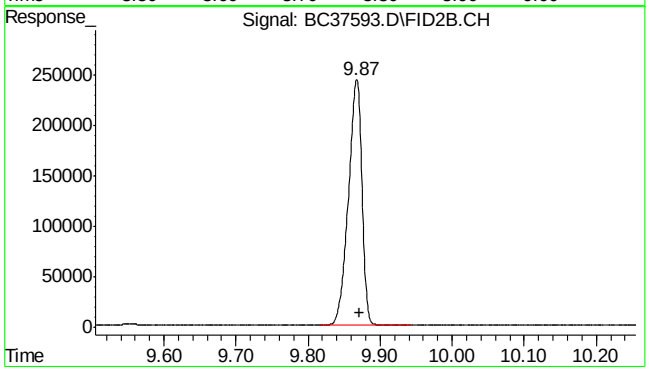
#28 c-12

R.T.: 7.688 min
Delta R.T.: -0.002 min
Response: 340509
Conc: 50.22 ppm



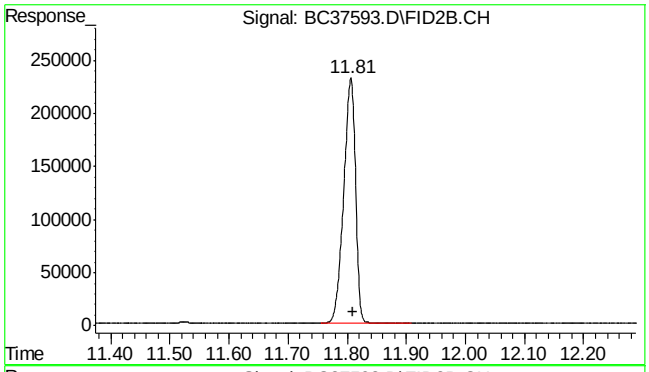
#29 2-methylnaphthalene #2

R.T.: 8.772 min
Delta R.T.: -0.004 min
Response: 330489
Conc: 48.75 ppm



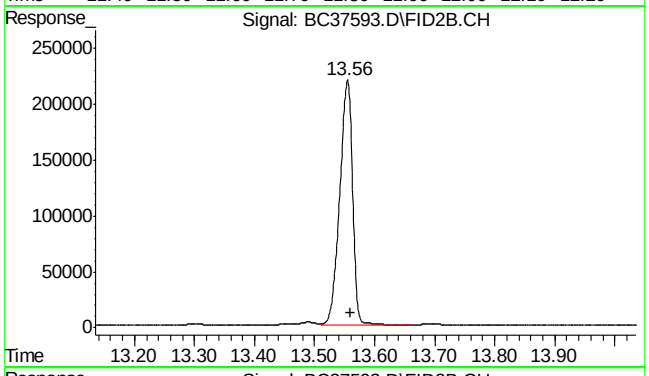
#30 c-14

R.T.: 9.868 min
Delta R.T.: -0.003 min
Response: 317197
Conc: 46.78 ppm



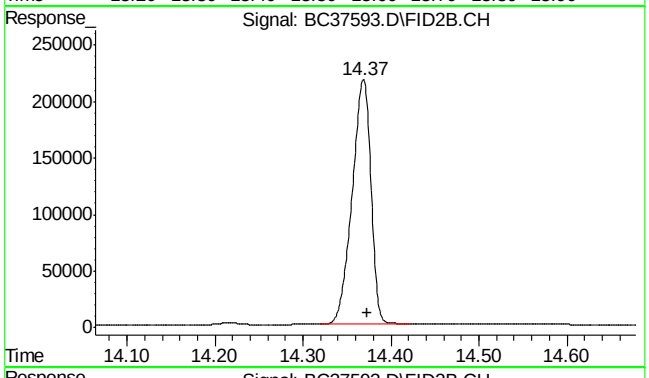
#31 c-16

R.T.: 11.806 min
Delta R.T.: -0.004 min
Response: 319545
Conc: 47.13 ppm



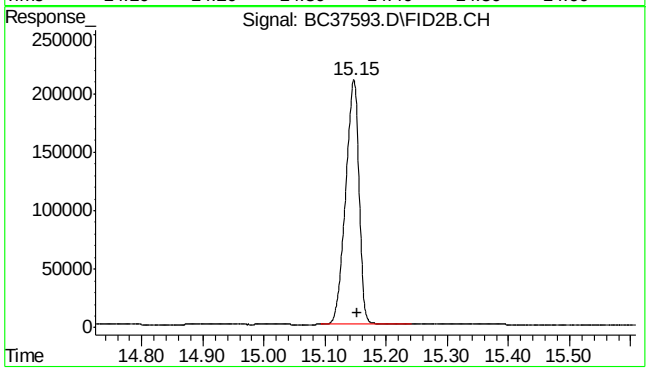
#32 c-18

R.T.: 13.555 min
Delta R.T.: -0.004 min
Response: 324509
Conc: 47.86 ppm



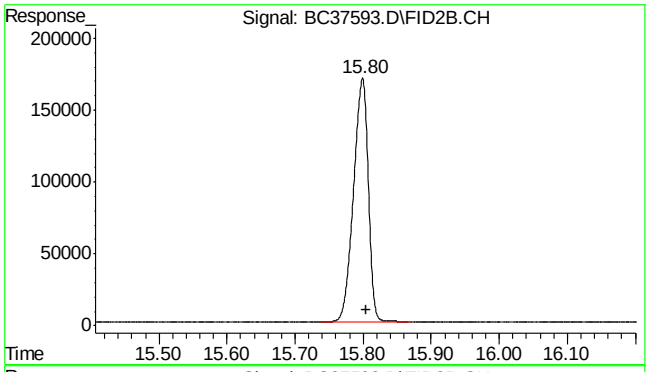
#33 c-19

R.T.: 14.368 min
Delta R.T.: -0.005 min
Response: 322193
Conc: 57.10 ppm



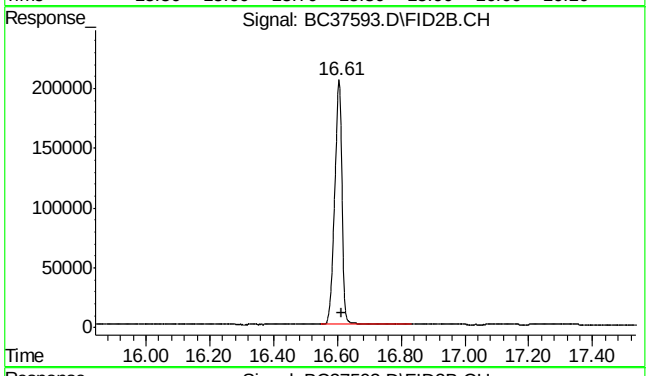
#34 c-20

R.T.: 15.147 min
Delta R.T.: -0.006 min
Response: 320586
Conc: 56.82 ppm



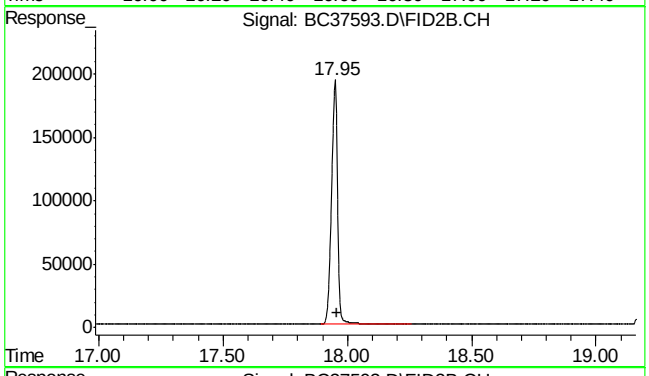
#35 1-chlorooctadecane

R.T.: 15.799 min
Delta R.T.: -0.006 min
Response: 258522
Conc: 57.06 ppm



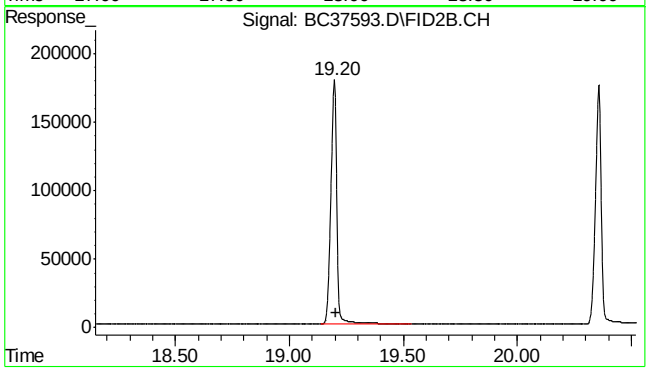
#36 c-22

R.T.: 16.605 min
Delta R.T.: -0.007 min
Response: 324809
Conc: 57.57 ppm



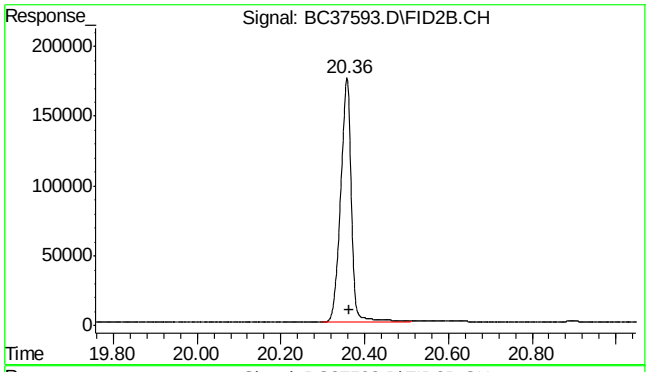
#37 c-24

R.T.: 17.951 min
Delta R.T.: -0.007 min
Response: 325714
Conc: 57.73 ppm



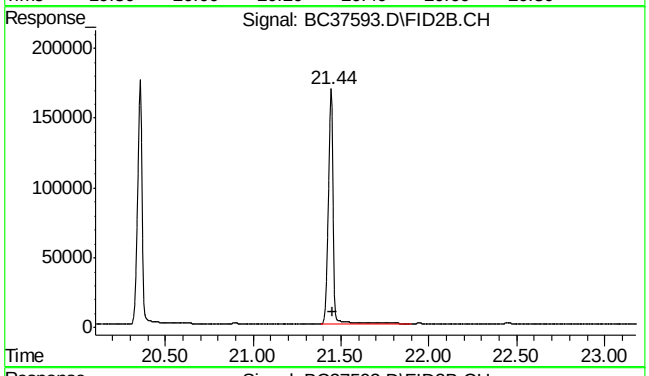
#38 c-26

R.T.: 19.198 min
Delta R.T.: -0.005 min
Response: 321564
Conc: 56.99 ppm



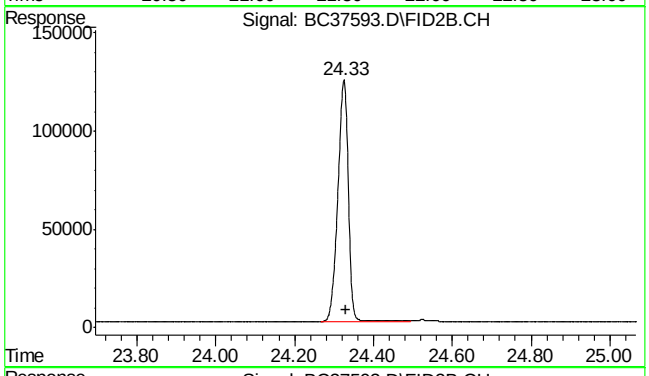
#39 c-28

R.T.: 20.358 min
Delta R.T.: -0.007 min
Response: 311368
Conc: 55.18 ppm



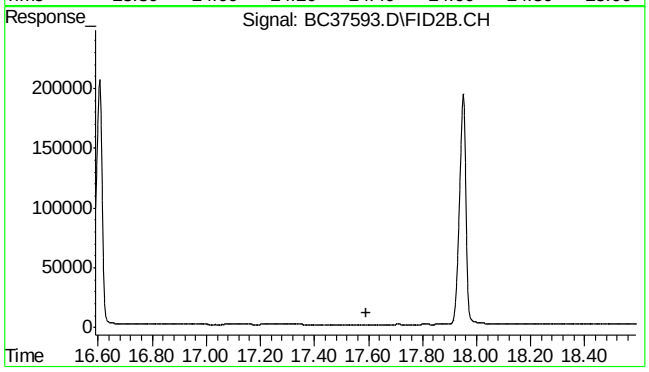
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 316031
Conc: 56.01 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 226816
Conc: 40.20 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.10

10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37600.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37600.D\FID2B.CH
Acq On : 3-11-10 09:13:38 AM Operator: KimD
Sample : ecc1911-50 Inst : GCBC
Misc : op20804,gbc1913,11.45,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 09:44:04 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	291027	51.670 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 258.35%#	
6) s 2-bromonaphthalene	10.46	196061	55.032 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 275.16%#	
11) s o-terphenyl	14.23	347960	50.561 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 252.80%#	
35) s 1-chlorooctadecane	15.80	263106	58.071 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 290.36%#	
Target Compounds			
2) naphthalene	7.29	332035	51.920 ppm
3) 2-methylnaphthalene	8.58	326431	53.170 ppm
5) acenaphthylene	10.22	332207	51.786 ppm
7) acenaphthene	10.58	345003	50.108 ppm
8) fluorene	11.53	329638	55.444 ppm
9) phenanthrene	13.29	336190	55.754 ppm
10) anthracene	13.37	331107	55.981 ppm
12) fluoranthene	15.53	338620	55.220 ppm
13) pyrene	15.92	339334	53.697 ppm
14) benzo(a)anthracene	18.24	313982	58.373 ppm
15) chrysene	18.32	336829	57.556 ppm
16) benzo(b)fluoranthene	20.18	315711	61.880 ppm
17) benzo(k)fluoranthene	20.23	319450	58.580 ppm
18) benzo(a)pyrene	20.69	319675	62.444 ppm
19) indeno(1,2,3-cd)pyrene	22.37	254173	55.376 ppm
20) dibenzo(ah)anthracene	22.44	260229	67.001 ppm
21) benzo(ghi)perylene	22.71	238979	50.669 ppm
25) h c-9	3.81	324500	47.856 ppm
26) h c-10	5.18	329447	48.586 ppm
27) naphthalene #2	7.51	345006	45.864 ppm
28) c-12	7.69	344177	50.758 ppm
29) 2-methylnaphthalene #2	8.77	334324	49.314 ppm
30) c-14	9.87	321117	47.357 ppm
31) c-16	11.81	323685	47.736 ppm
32) c-18	13.55	328616	48.463 ppm
33) c-19	14.37	326487	57.865 ppm
34) c-20	15.15	324869	57.578 ppm
36) c-22	16.60	328780	58.271 ppm
37) c-24	17.95	326763	57.913 ppm
38) c-26	19.20	324778	57.562 ppm
39) c-28	20.36	314367	55.717 ppm
40) h c-30	21.45	319187	56.571 ppm
41) h c-36	24.33	234835	41.621 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37600.D EPH031010.M Thu Mar 11 14:10:03 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37600.D\FID1A.CH         Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37600.D\FID2B.CH
Acq On    : 3-11-10 09:13:38 AM                      Operator: KimD
Sample    : ecc1911-50                               Inst    : GCBC
Misc      : op20804,gbc1913,11.45,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 11 09:44:04 2010  Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Tue Mar 09 14:12:20 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-----------------------------------------------------------------------
```

10.5.11

10

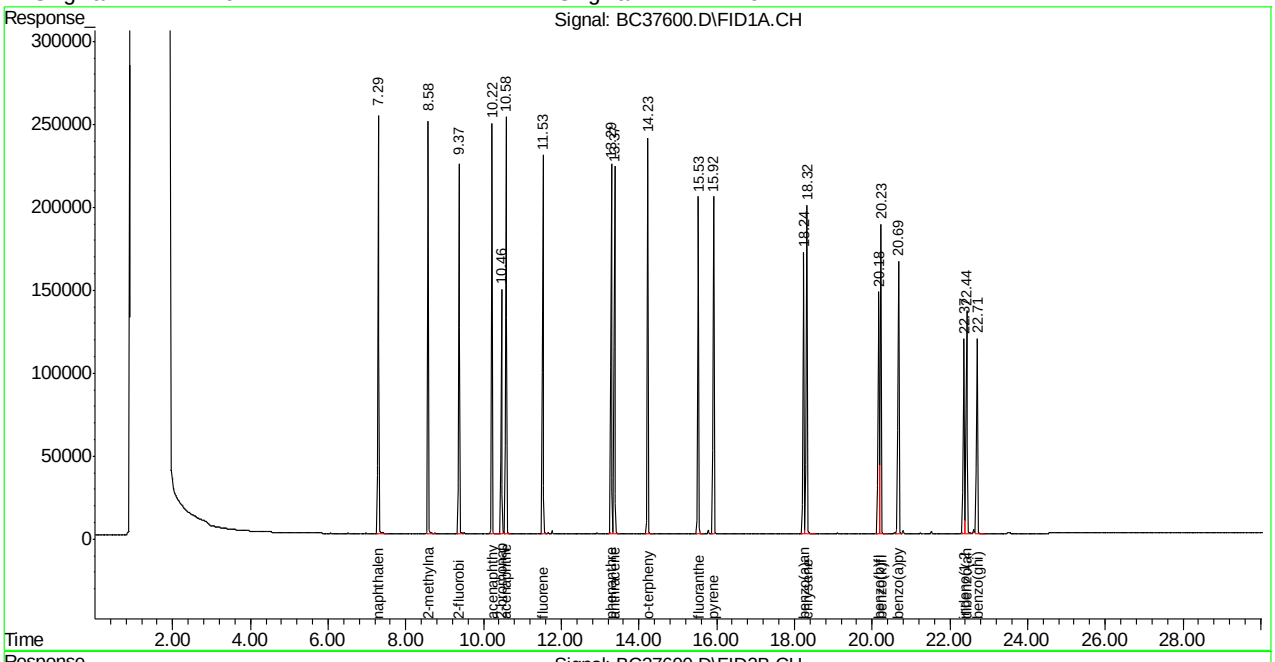
```
-----------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37600.D  EPH031010.M      Thu Mar 11 14:10:03 2010      RPGEN1
```

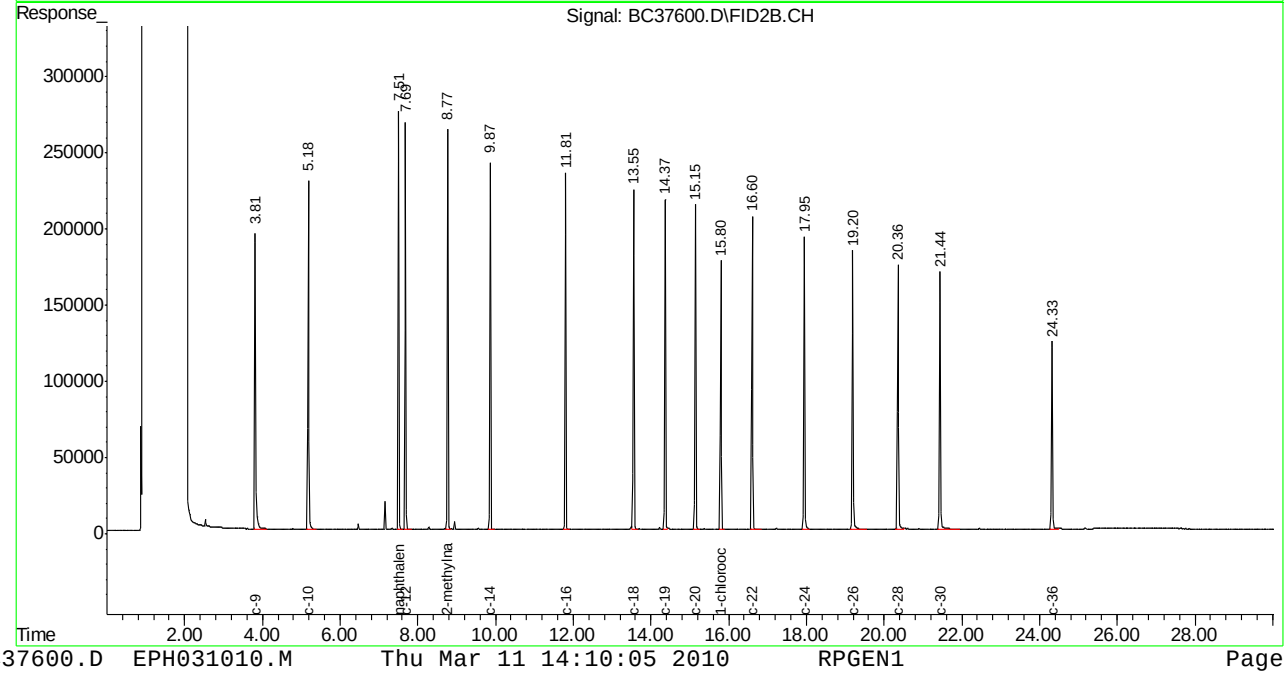
Quantitation Report (QT Reviewed)

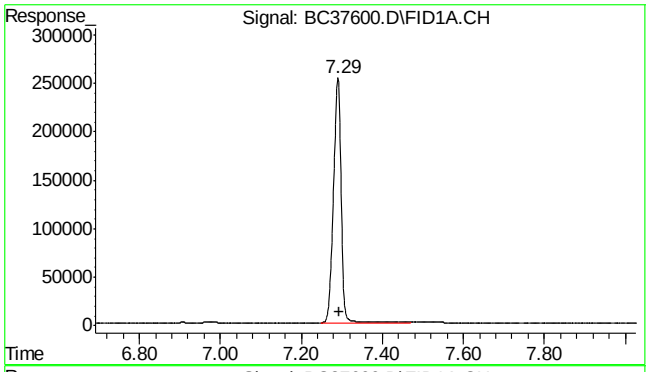
Signal #1 : C:\MSDCHEM\1\DATA\BC37600.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37600.D\FID2B.CH
Acq On : 3-11-10 09:13:38 AM Operator: KimD
Sample : ecc1911-50 Inst : GCBC
Misc : op20804,gbc1913,11.45,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 10:43 2010 Quant Results File: EPH031010.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031010.M (RTE Integrator)
Title : BMAEPH
Last Update : Tue Mar 09 14:12:20 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

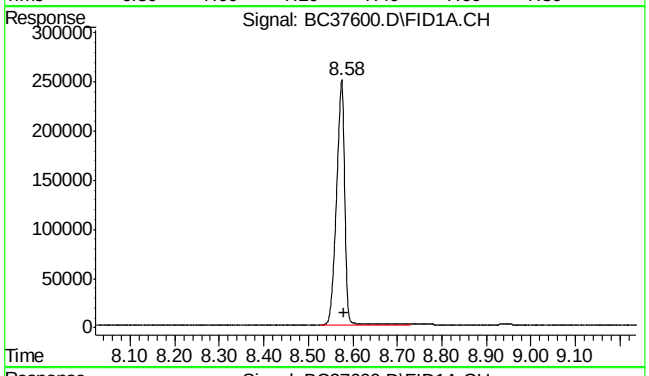






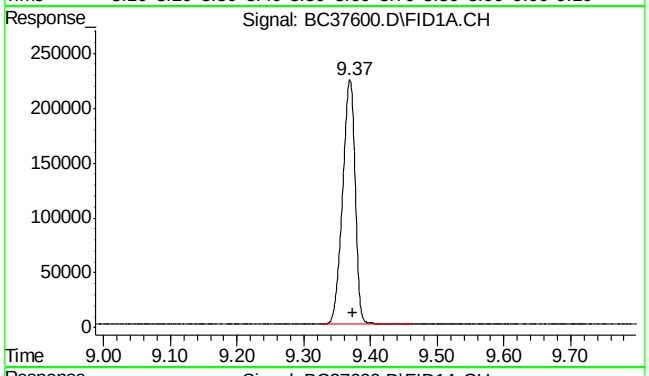
#2 naphthalene

R.T.: 7.290 min
Delta R.T.: -0.005 min
Response: 332035
Conc: 51.92 ppm



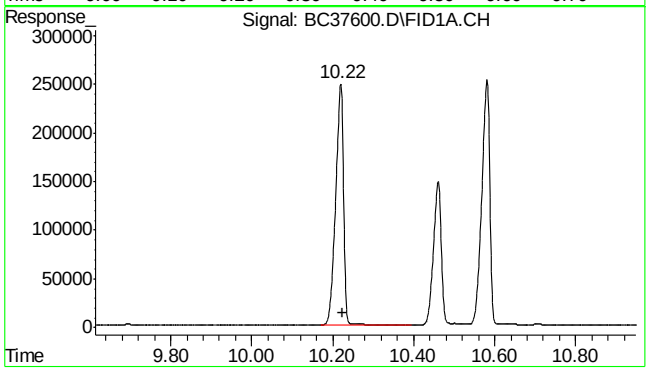
#3 2-methylnaphthalene

R.T.: 8.575 min
Delta R.T.: -0.004 min
Response: 326431
Conc: 53.17 ppm



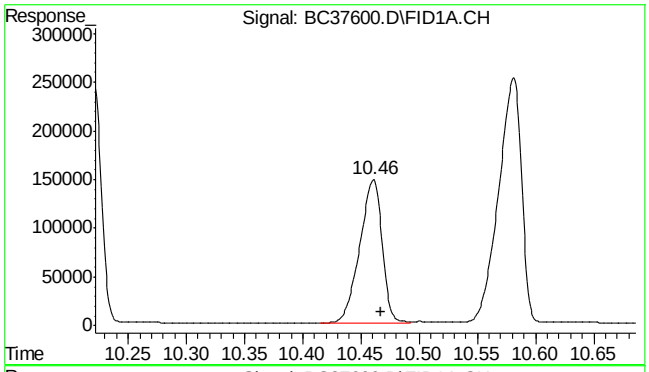
#4 2-fluorobiphenyl

R.T.: 9.369 min
Delta R.T.: -0.005 min
Response: 291027
Conc: 51.67 ppm



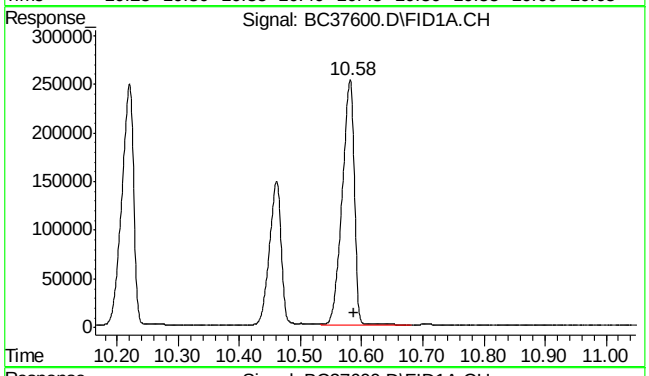
#5 acenaphthylene

R.T.: 10.219 min
Delta R.T.: -0.006 min
Response: 332207
Conc: 51.79 ppm



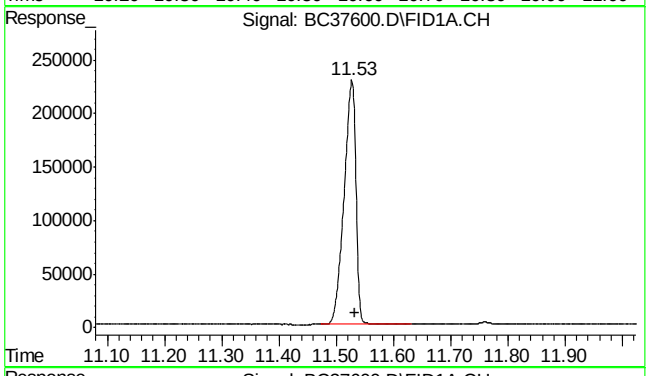
#6 2-bromonaphthalene

R.T.: 10.460 min
Delta R.T.: -0.006 min
Response: 196061
Conc: 55.03 ppm



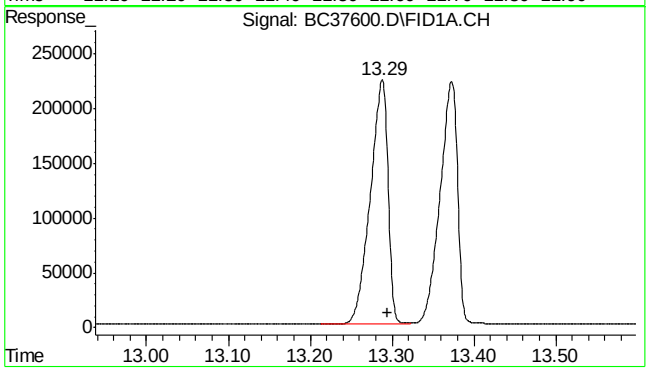
#7 acenaphthene

R.T.: 10.581 min
Delta R.T.: -0.005 min
Response: 345003
Conc: 50.11 ppm



#8 fluorene

R.T.: 11.527 min
Delta R.T.: -0.005 min
Response: 329638
Conc: 55.44 ppm



#9 phenanthrene

R.T.: 13.288 min
Delta R.T.: -0.006 min
Response: 336190
Conc: 55.75 ppm

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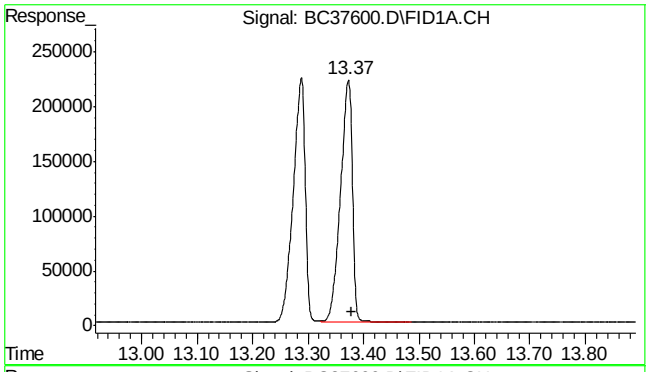
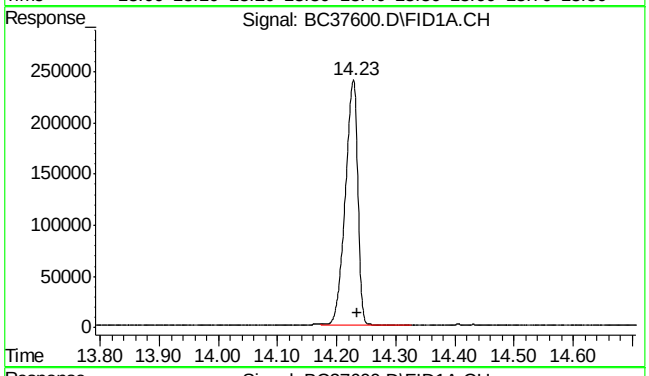


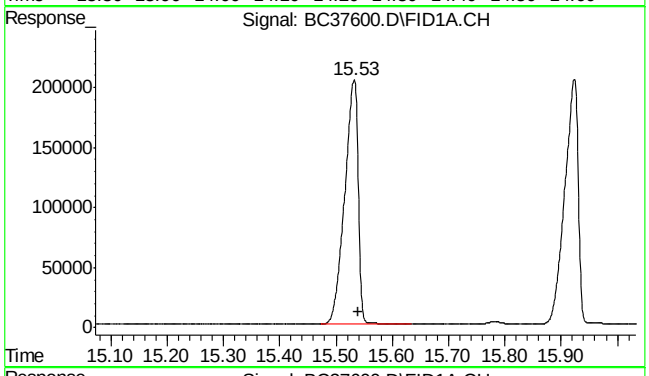
#10 anthracene

R.T.: 13.373 min
Delta R.T.: -0.006 min
Response: 331107
Conc: 55.98 ppm



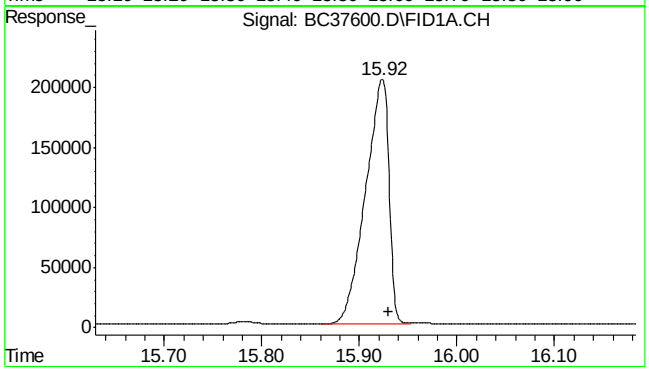
#11 o-terphenyl

R.T.: 14.229 min
Delta R.T.: -0.005 min
Response: 347960
Conc: 50.56 ppm



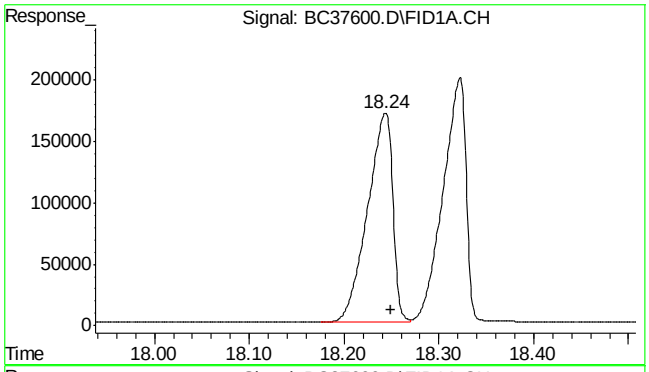
#12 fluoranthene

R.T.: 15.533 min
Delta R.T.: -0.006 min
Response: 338620
Conc: 55.22 ppm



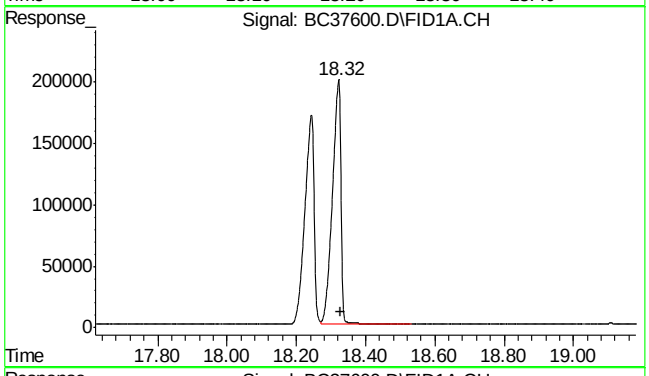
#13 pyrene

R.T.: 15.924 min
Delta R.T.: -0.006 min
Response: 339334
Conc: 53.70 ppm



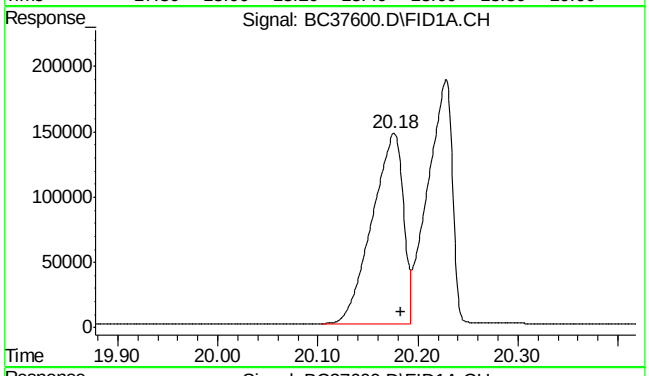
#14 benzo(a)anthracene

R.T.: 18.243 min
Delta R.T.: -0.006 min
Response: 313982
Conc: 58.37 ppm



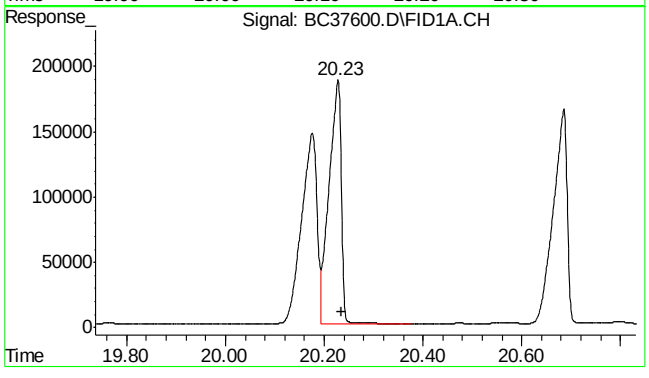
#15 chrysene

R.T.: 18.323 min
Delta R.T.: -0.006 min
Response: 336829
Conc: 57.56 ppm



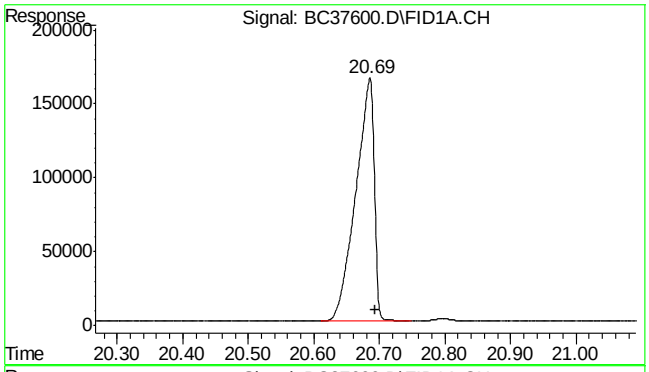
#16 benzo(b)fluoranthene

R.T.: 20.175 min
Delta R.T.: -0.008 min
Response: 315711
Conc: 61.88 ppm



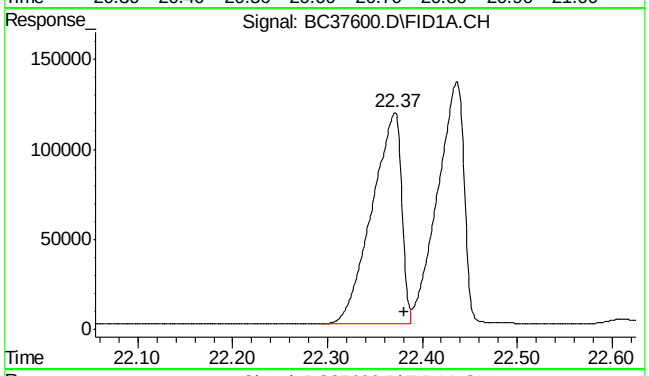
#17 benzo(k)fluoranthene

R.T.: 20.228 min
Delta R.T.: -0.007 min
Response: 319450
Conc: 58.58 ppm



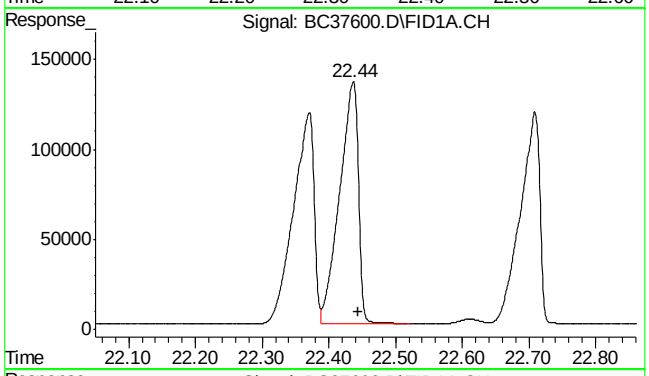
#18 benzo(a)pyrene

R.T.: 20.685 min
Delta R.T.: -0.008 min
Response: 319675
Conc: 62.44 ppm



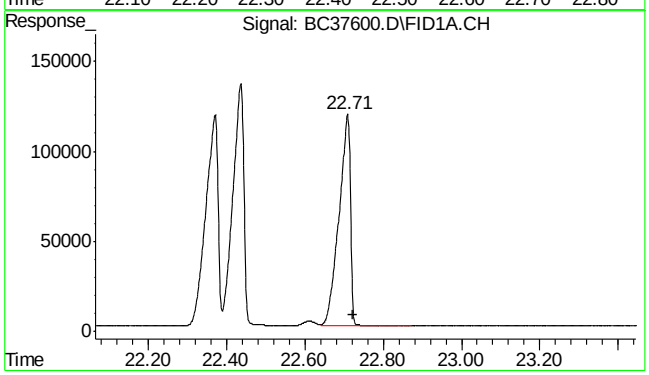
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.371 min
Delta R.T.: -0.010 min
Response: 254173
Conc: 55.38 ppm



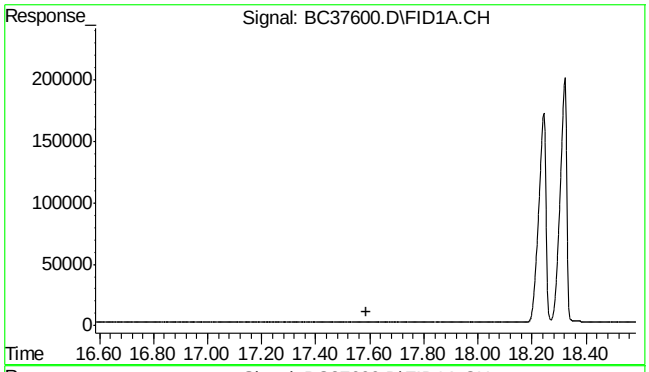
#20 dibenzo(ah)anthracene

R.T.: 22.436 min
Delta R.T.: -0.008 min
Response: 260229
Conc: 67.00 ppm



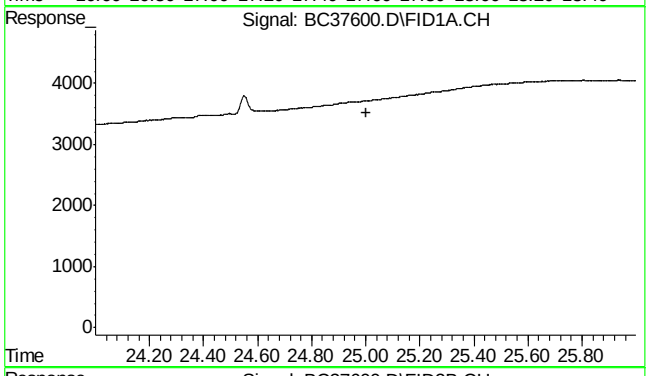
#21 benzo(ghi)perylene

R.T.: 22.709 min
Delta R.T.: -0.014 min
Response: 238979
Conc: 50.67 ppm



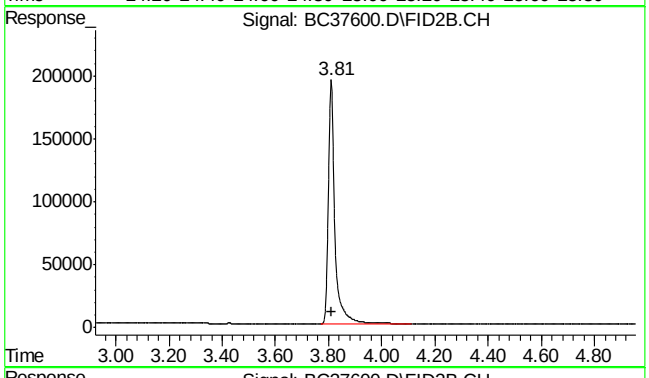
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.585 min
Response: 0
Conc: N.D.



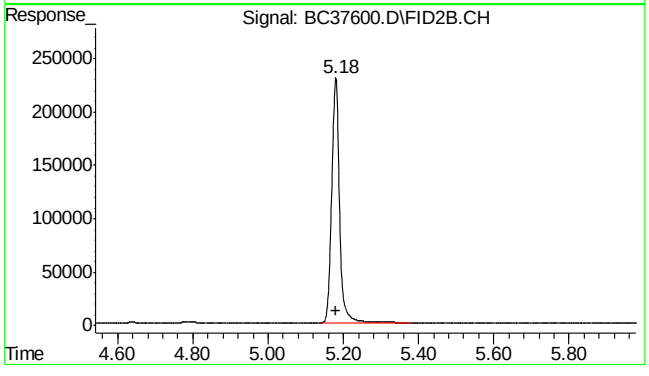
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



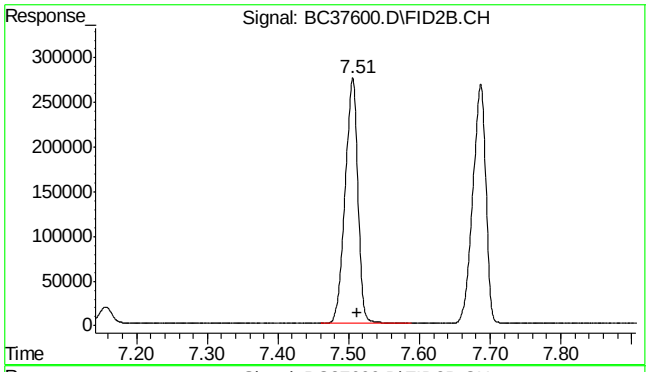
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 324500
Conc: 47.86 ppm m



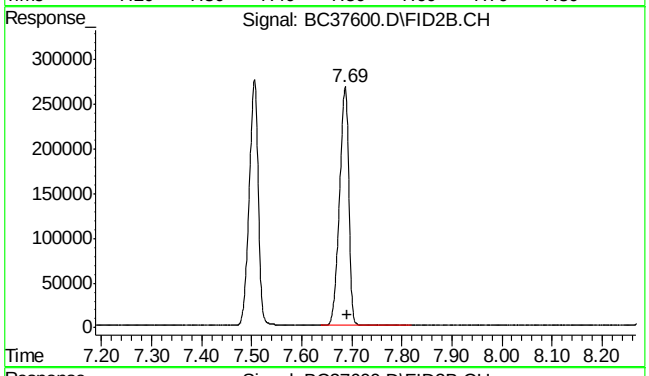
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 329447
Conc: 48.59 ppm m



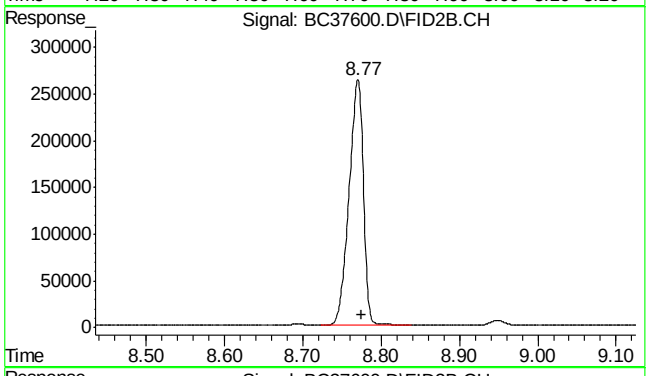
#27 naphthalene #2

R.T.: 7.505 min
Delta R.T.: -0.007 min
Response: 345006
Conc: 45.86 ppm



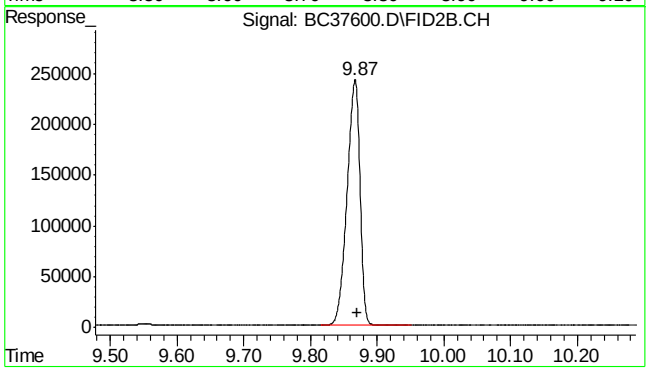
#28 c-12

R.T.: 7.687 min
Delta R.T.: -0.003 min
Response: 344177
Conc: 50.76 ppm



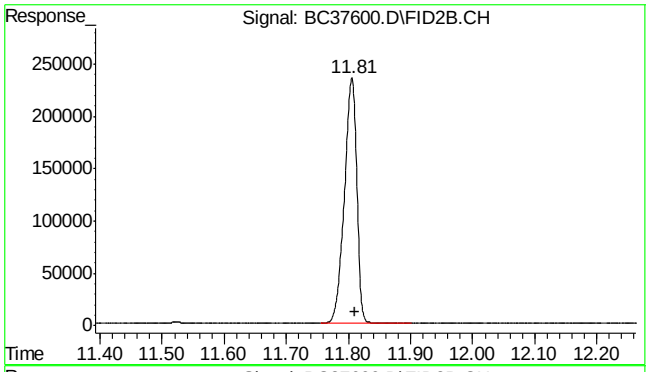
#29 2-methylnaphthalene #2

R.T.: 8.770 min
Delta R.T.: -0.005 min
Response: 334324
Conc: 49.31 ppm



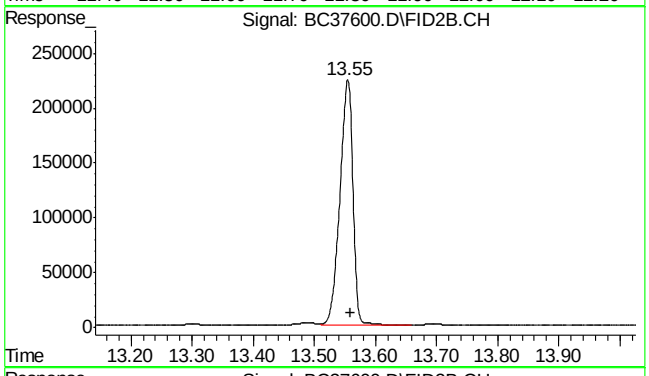
#30 c-14

R.T.: 9.867 min
Delta R.T.: -0.004 min
Response: 321117
Conc: 47.36 ppm



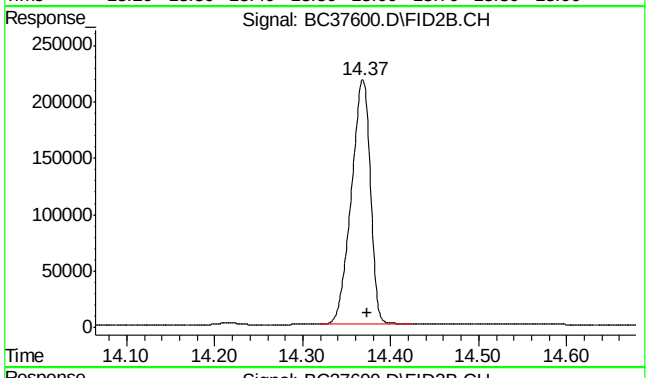
#31 c-16

R.T.: 11.805 min
Delta R.T.: -0.005 min
Response: 323685
Conc: 47.74 ppm



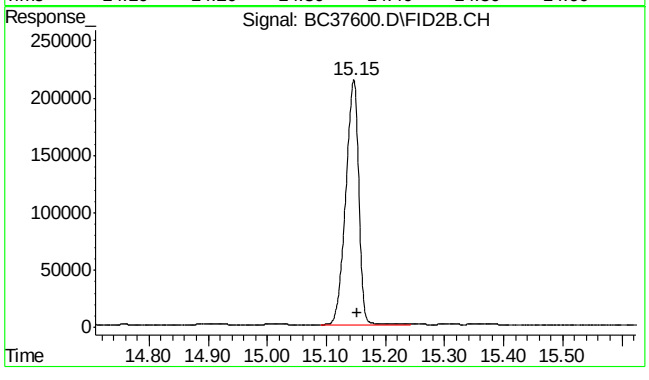
#32 c-18

R.T.: 13.554 min
Delta R.T.: -0.005 min
Response: 328616
Conc: 48.46 ppm



#33 c-19

R.T.: 14.368 min
Delta R.T.: -0.006 min
Response: 326487
Conc: 57.86 ppm



#34 c-20

R.T.: 15.146 min
Delta R.T.: -0.006 min
Response: 324869
Conc: 57.58 ppm

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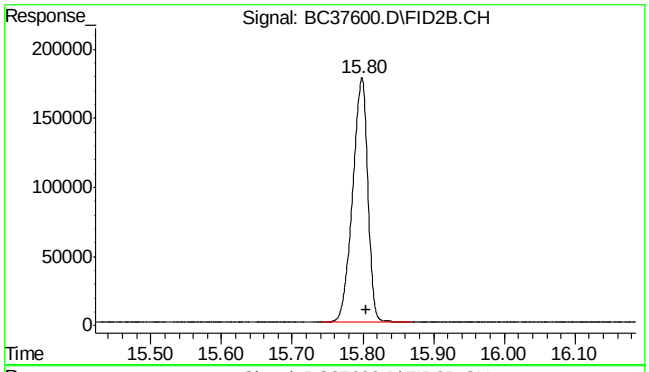
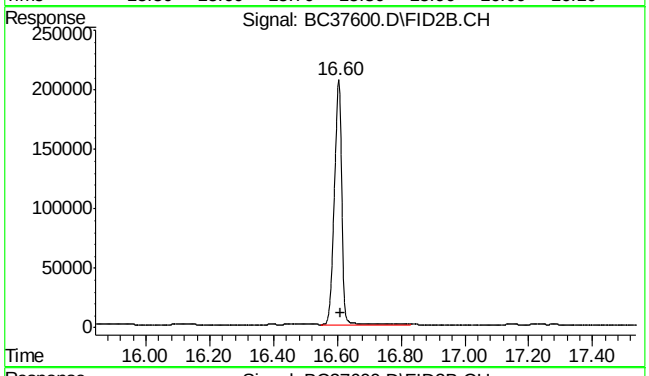


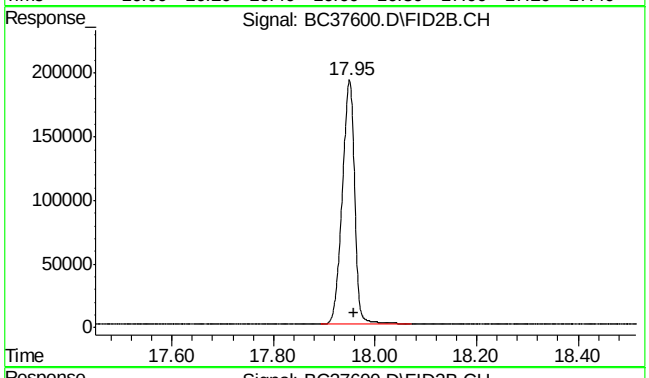
#35 1-chlorooctadecane

R.T.: 15.799 min
Delta R.T.: -0.006 min
Response: 263106
Conc: 58.07 ppm



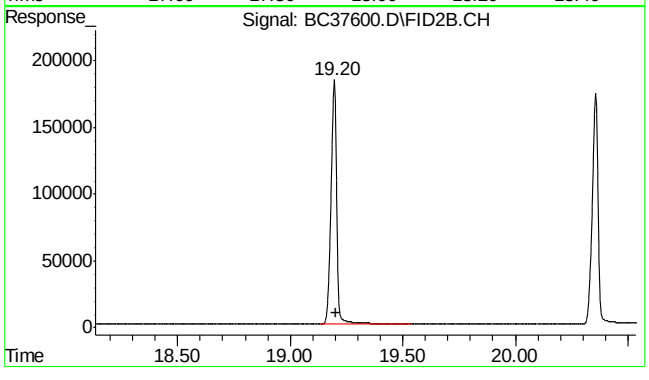
#36 c-22

R.T.: 16.604 min
Delta R.T.: -0.007 min
Response: 328780
Conc: 58.27 ppm



#37 c-24

R.T.: 17.949 min
Delta R.T.: -0.008 min
Response: 326763
Conc: 57.91 ppm



#38 c-26

R.T.: 19.196 min
Delta R.T.: -0.006 min
Response: 324778
Conc: 57.56 ppm

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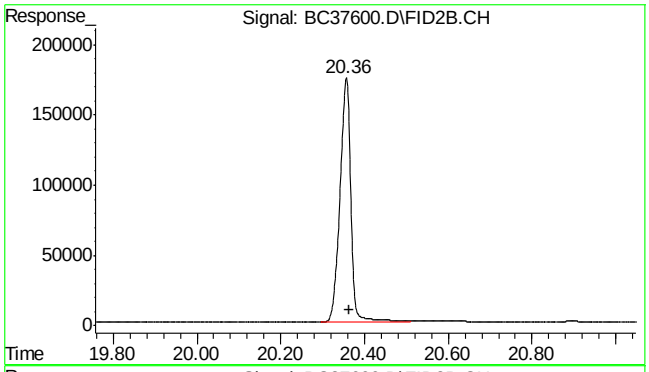
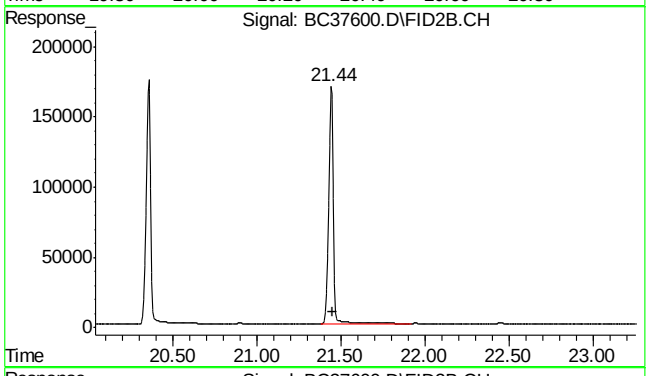


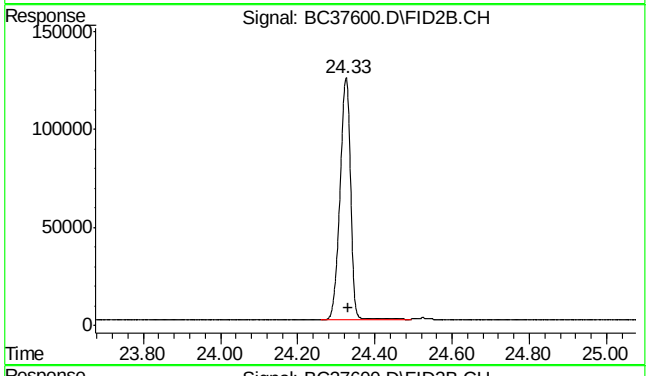
#39 c-28

R.T.: 20.357 min
Delta R.T.: -0.007 min
Response: 314367
Conc: 55.72 ppm



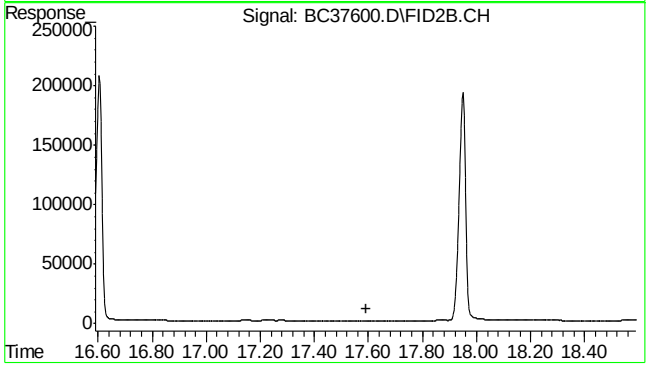
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 319187
Conc: 56.57 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 234835
Conc: 41.62 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.11

10

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/15/10 14:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37604.D\FID1A.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37604.D\FID2B.CH
Acq On : 11 Mar 2010 12:17 pm Operator: KimD
Sample : ic1915-200 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:42:01 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 12:34:04 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
4) s 2-fluorobiphenyl	9.40f	1191874	211.611 ppm	
Spiked Amount 20.000 Range 40 - 140		Recovery	= 1058.05%#	
6) s 2-bromonaphthalene	10.49f	807700	226.712 ppm	
Spiked Amount 20.000 Range 40 - 140		Recovery	= 1133.56%#	
11) s o-terphenyl	14.26	1358950	197.463 ppm	
Spiked Amount 20.000 Range 40 - 140		Recovery	= 987.31%#	
35) s 1-chlorooctadecane	15.82f	1053091	232.430 ppm	
Spiked Amount 20.000 Range 40 - 140		Recovery	= 1162.15%#	
Target Compounds				
2) naphthalene	7.32f	1329814	207.941 ppm	
3) 2-methylnaphthalene	8.60f	1309235	213.250 ppm	
5) acenaphthylene	10.25f	1321146	205.948 ppm	
7) acenaphthene	10.62f	1361746	197.779 ppm	
8) fluorene	11.56f	1314117	221.032 ppm	
9) phenanthrene	13.32f	1362373	225.936 ppm	
10) anthracene	13.42f	1295332	219.006 ppm	m
12) fluoranthene	15.58f	1308495	213.381 ppm	
13) pyrene	15.97f	1339348	211.940 ppm	m
14) benzo(a)anthracene	18.29f	1156163	212.277 ppm	m
15) chrysene	18.38f	1232629	210.627 ppm	m
16) benzo(b)fluoranthene	20.22f	1145031	224.430 ppm	
17) benzo(k)fluoranthene	20.29f	1046464	191.897 ppm	m
18) benzo(a)pyrene	20.74f	980385	191.505 ppm	
19) indeno(1,2,3-cd)pyrene	22.40	612572	134.886 ppm	
20) dibenzo(ah)anthracene	22.47	534934	143.130 ppm	
21) benzo(ghi)perylene	22.74	469914	113.270 ppm	
25) h c-9	3.81	1290139	190.266 ppm	
26) h c-10	5.18	1302883	192.145 ppm	
27) naphthalene #2	7.53f	1454772	193.393 ppm	
28) c-12	7.71f	1365445	201.372 ppm	
29) 2-methylnaphthalene #2	8.79f	1317545	194.342 ppm	
30) c-14	9.89f	1270125	187.314 ppm	
31) c-16	11.83f	1276053	188.188 ppm	
32) c-18	13.58f	1292309	190.586 ppm	
33) c-19	14.39f	1289553	228.553 ppm	
34) c-20	15.17f	1282033	227.220 ppm	
36) c-22	16.63f	1295477	229.602 ppm	
37) c-24	17.98f	1297601	229.979 ppm	
38) c-26	19.22f	1281488	227.123 ppm	
39) c-28	20.39f	1278418	226.579 ppm	
40) h c-30	21.45	1274191	225.830 ppm	
41) h c-36	24.33	651868	115.533 ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37604.D EPH031110.M Fri Mar 12 13:46:16 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37604.D\FID1A.CH         Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37604.D\FID2B.CH
Acq On    : 11 Mar 2010  12:17 pm                    Operator: KimD
Sample    : ic1915-200                               Inst    : GCBC
Misc      : op20829,gbc1915,11.12,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:42:01 2010  Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Thu Mar 11 12:34:04 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-----------------------------------------------------------------------
```

10.5.12

10

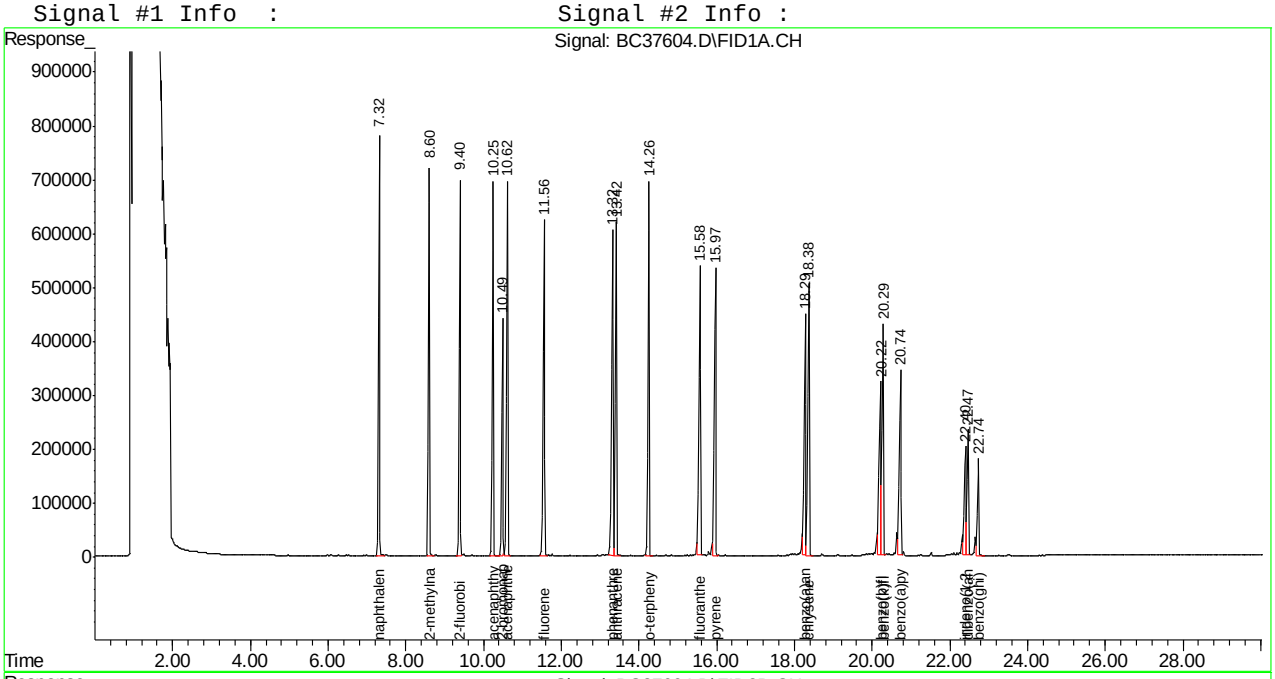
```
-----------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37604.D  EPH031110.M      Fri Mar 12 13:46:17 2010      RPGEN1
```

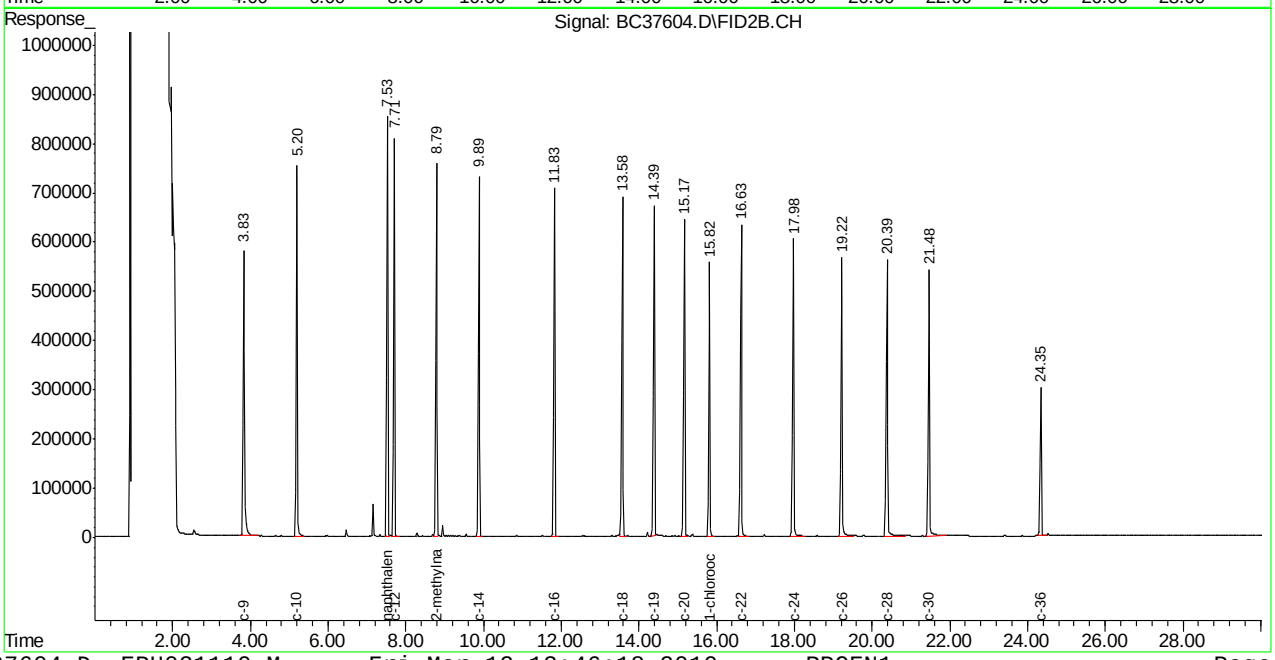
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37604.D\FID1A.CH Vial: 77
Signal #2 : C:\MSDCHEM\1\DATA\BC37604.D\FID2B.CH
Acq On : 11 Mar 2010 12:17 pm Operator: KimD
Sample : ic1915-200 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:53 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 12:34:04 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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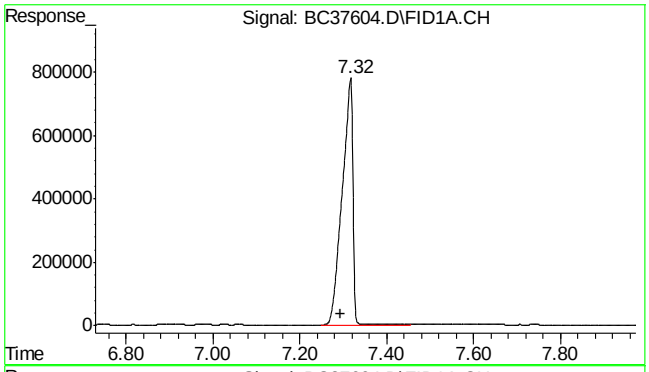
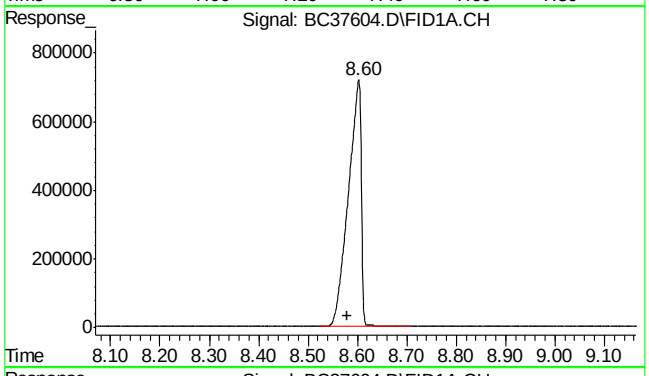


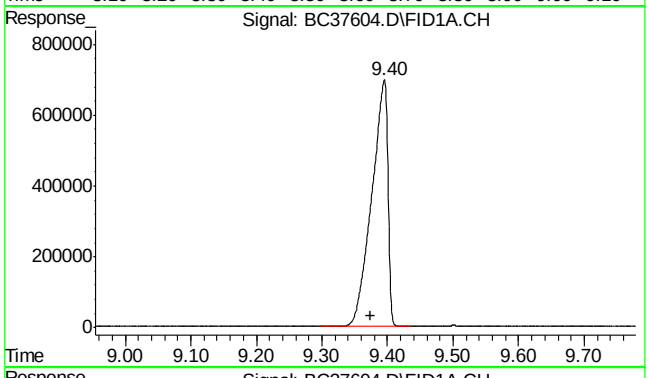
#2 naphthalene

R.T.: 7.317 min
Delta R.T.: 0.022 min
Response: 1329814
Conc: 207.94 ppm



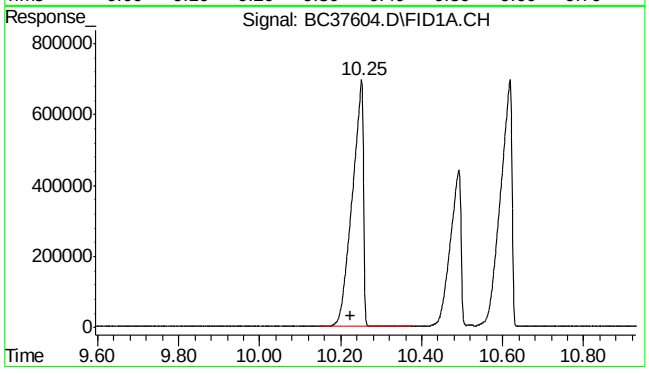
#3 2-methylnaphthalene

R.T.: 8.602 min
Delta R.T.: 0.023 min
Response: 1309235
Conc: 213.25 ppm



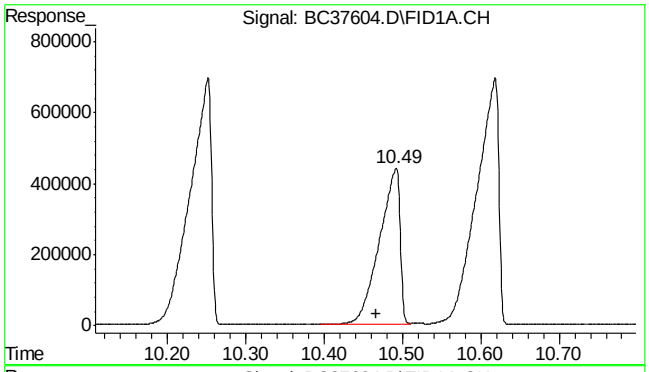
#4 2-fluorobiphenyl

R.T.: 9.395 min
Delta R.T.: 0.021 min
Response: 1191874
Conc: 211.61 ppm



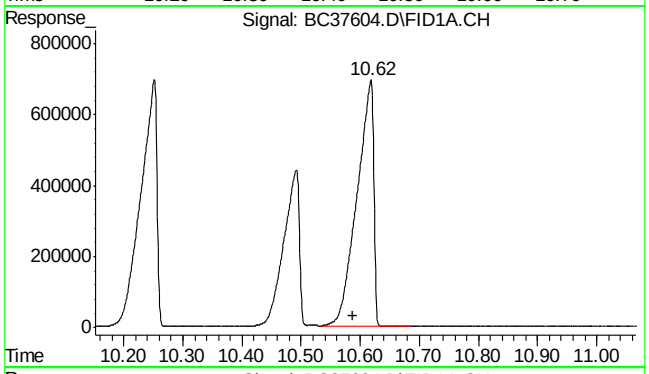
#5 acenaphthylene

R.T.: 10.251 min
Delta R.T.: 0.026 min
Response: 1321146
Conc: 205.95 ppm



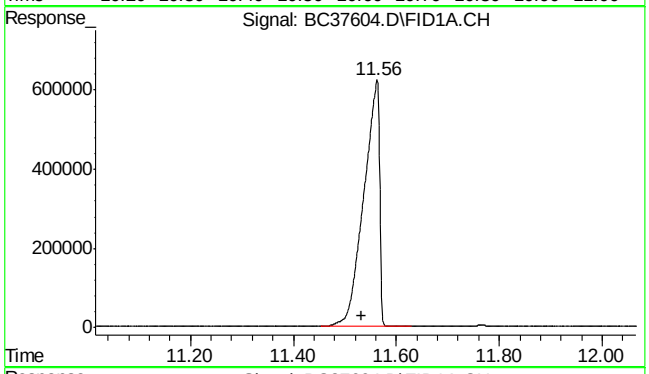
#6 2-bromonaphthalene

R.T.: 10.492 min
Delta R.T.: 0.026 min
Response: 807700
Conc: 226.71 ppm



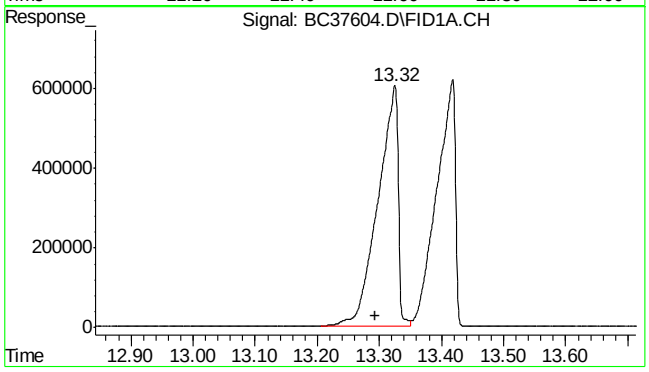
#7 acenaphthene

R.T.: 10.618 min
Delta R.T.: 0.031 min
Response: 1361746
Conc: 197.78 ppm



#8 fluorene

R.T.: 11.562 min
Delta R.T.: 0.030 min
Response: 1314117
Conc: 221.03 ppm



#9 phenanthrene

R.T.: 13.325 min
Delta R.T.: 0.031 min
Response: 1362373
Conc: 225.94 ppm

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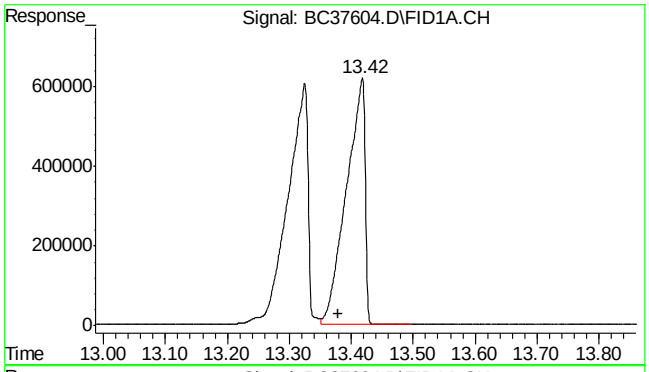
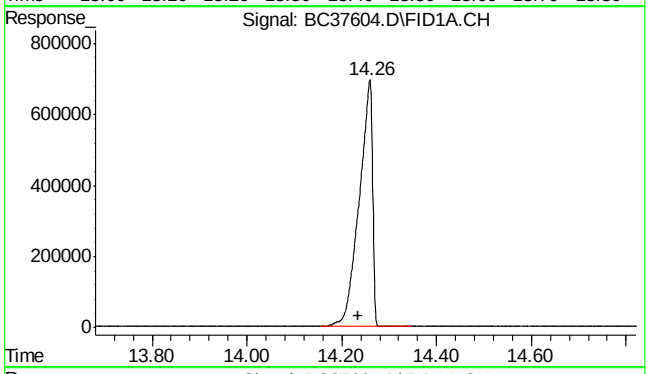


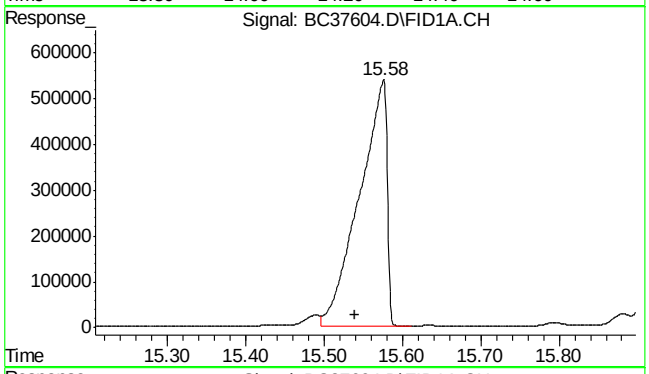
#10 anthracene

R.T.: 13.418 min
Delta R.T.: 0.039 min
Response: 1295332
Conc: 219.01 ppm m



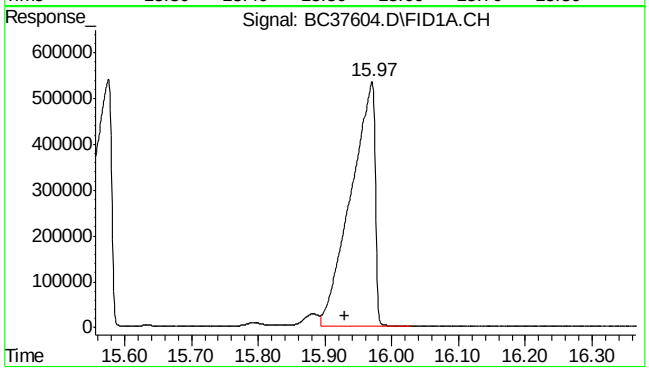
#11 o-terphenyl

R.T.: 14.259 min
Delta R.T.: 0.025 min
Response: 1358950
Conc: 197.46 ppm



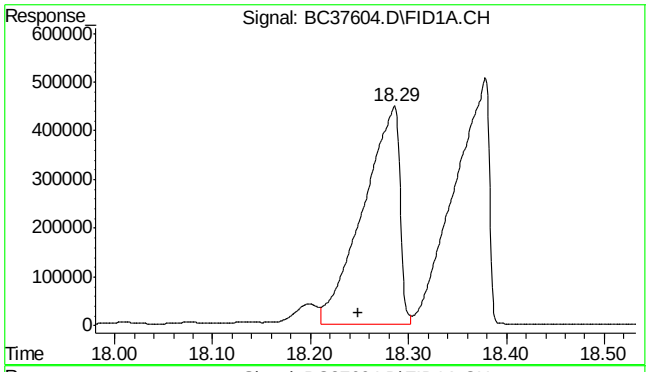
#12 fluoranthene

R.T.: 15.575 min
Delta R.T.: 0.036 min
Response: 1308495
Conc: 213.38 ppm



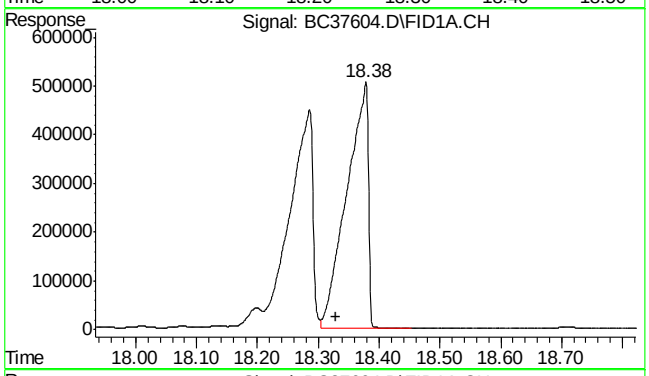
#13 pyrene

R.T.: 15.970 min
Delta R.T.: 0.040 min
Response: 1339348
Conc: 211.94 ppm m



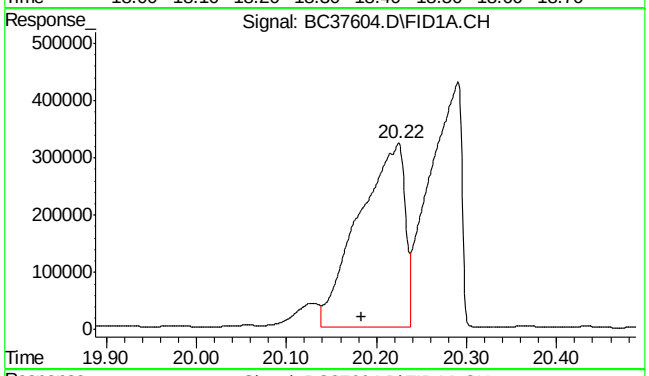
#14 benzo(a)anthracene

R.T.: 18.285 min
Delta R.T.: 0.036 min
Response: 1156163
Conc: 212.28 ppm m



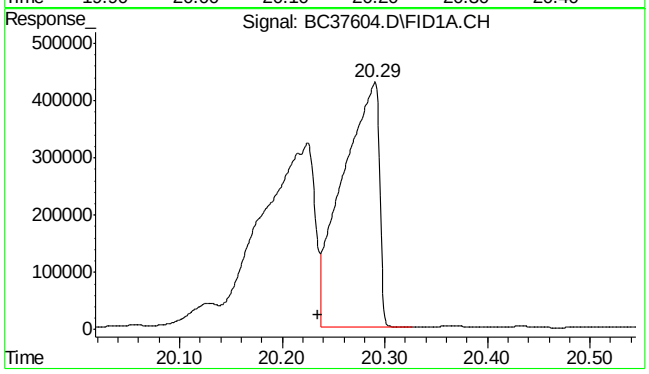
#15 chrysene

R.T.: 18.378 min
Delta R.T.: 0.050 min
Response: 1232629
Conc: 210.63 ppm m



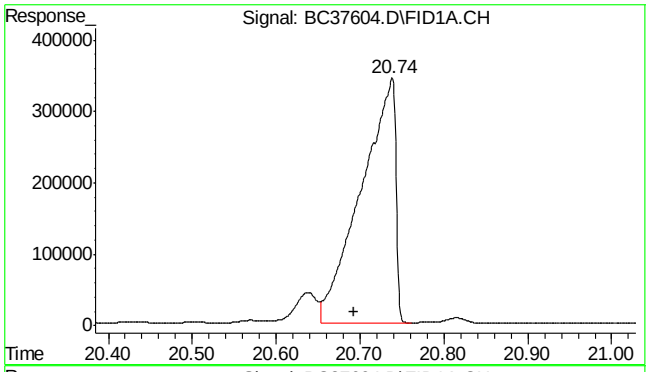
#16 benzo(b)fluoranthene

R.T.: 20.225 min
Delta R.T.: 0.041 min
Response: 1145031
Conc: 224.43 ppm



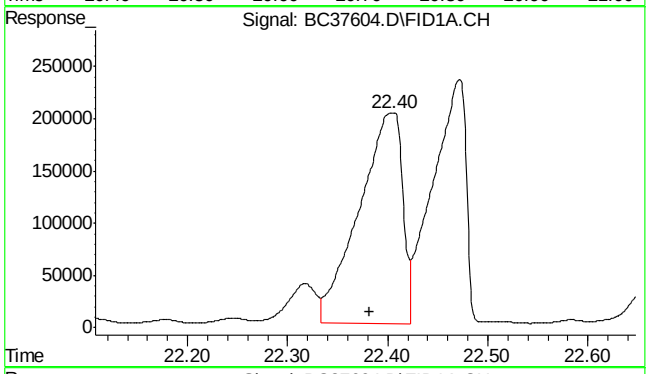
#17 benzo(k)fluoranthene

R.T.: 20.290 min
Delta R.T.: 0.056 min
Response: 1046464
Conc: 191.90 ppm m



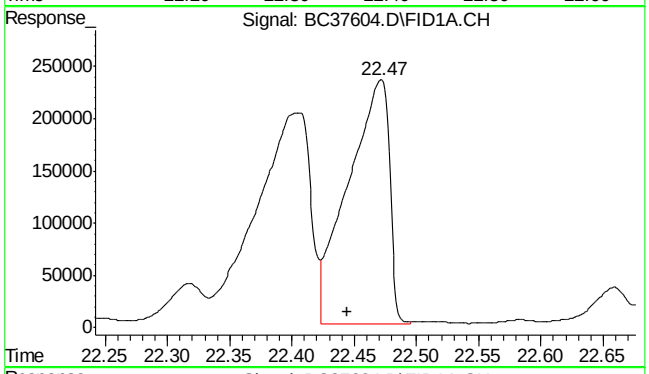
#18 benzo(a)pyrene

R.T.: 20.738 min
Delta R.T.: 0.045 min
Response: 980385
Conc: 191.51 ppm



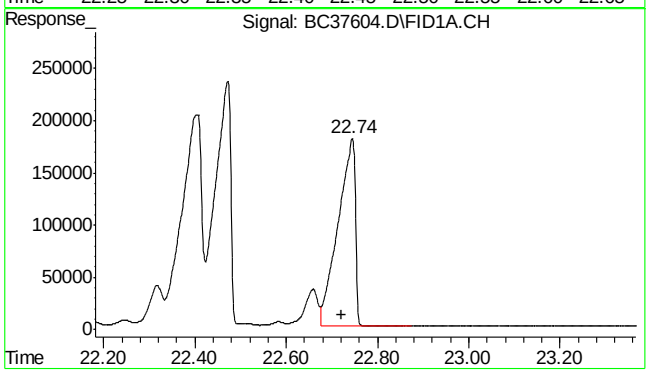
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.404 min
Delta R.T.: 0.022 min
Response: 612572
Conc: 134.89 ppm



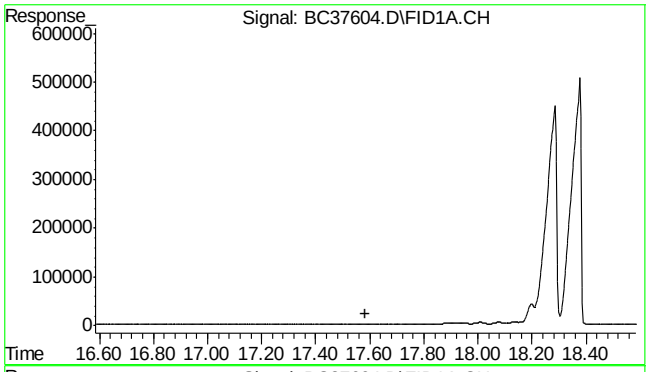
#20 dibenzo(ah)anthracene

R.T.: 22.472 min
Delta R.T.: 0.028 min
Response: 534934
Conc: 143.13 ppm



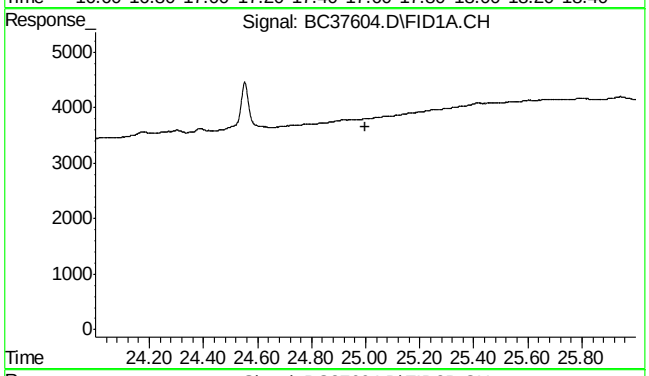
#21 benzo(ghi)perylene

R.T.: 22.745 min
Delta R.T.: 0.022 min
Response: 469914
Conc: 113.27 ppm



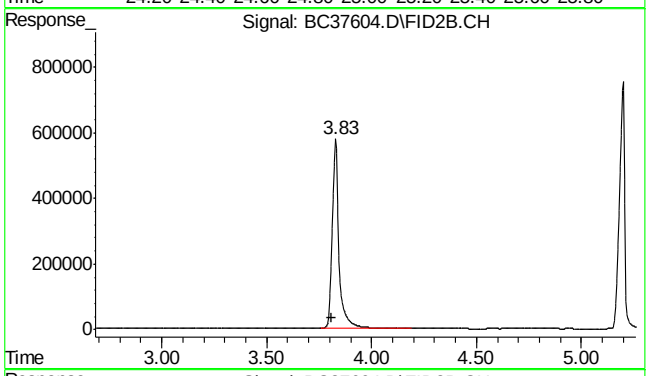
#22 bht

R.T.: 17.581 min
Delta R.T.: -0.004 min
Response: 1890
Conc: N.D.



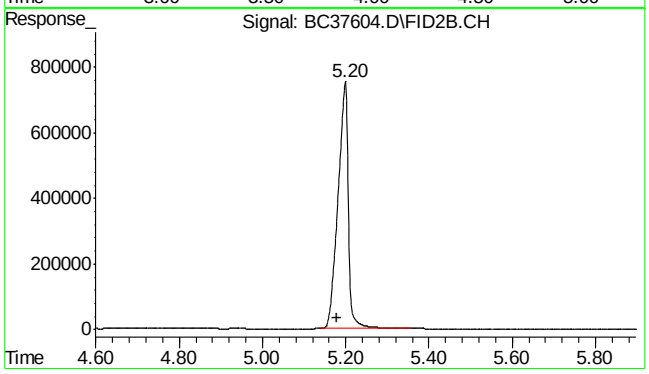
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



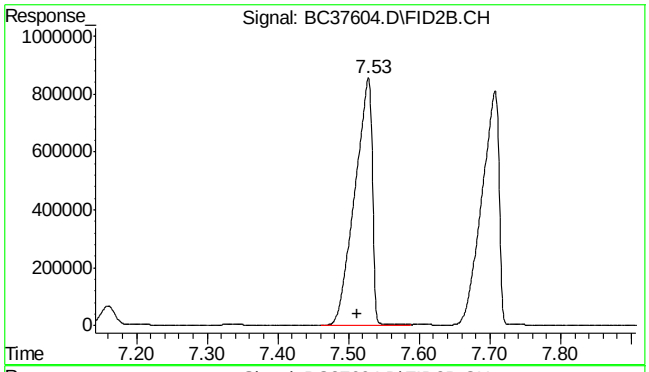
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 1290139
Conc: 190.27 ppm m



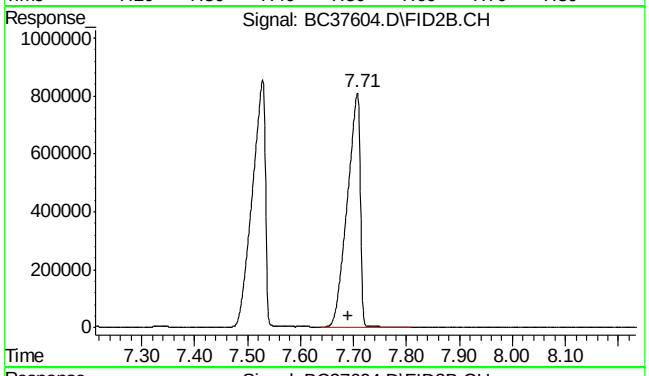
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 1302883
Conc: 192.15 ppm m



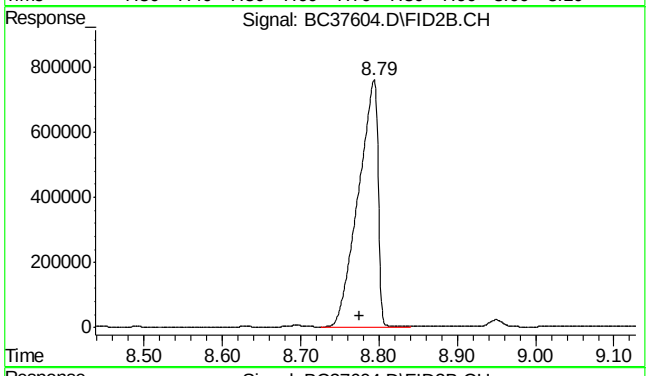
#27 naphthalene #2

R.T.: 7.528 min
Delta R.T.: 0.016 min
Response: 1454772
Conc: 193.39 ppm



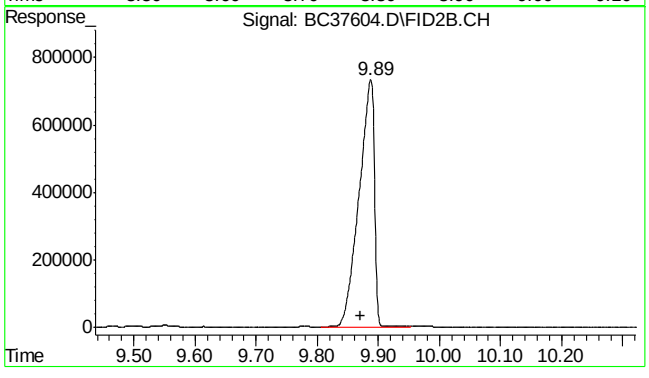
#28 c-12

R.T.: 7.707 min
Delta R.T.: 0.017 min
Response: 1365445
Conc: 201.37 ppm



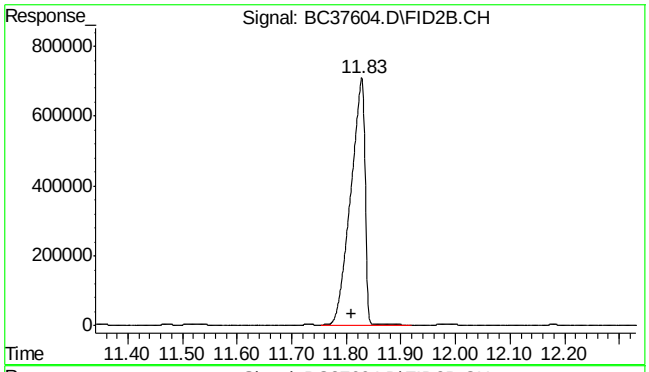
#29 2-methylnaphthalene #2

R.T.: 8.794 min
Delta R.T.: 0.018 min
Response: 1317545
Conc: 194.34 ppm



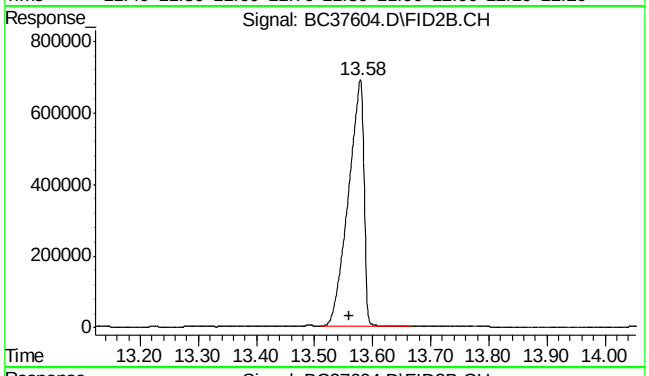
#30 c-14

R.T.: 9.887 min
Delta R.T.: 0.016 min
Response: 1270125
Conc: 187.31 ppm



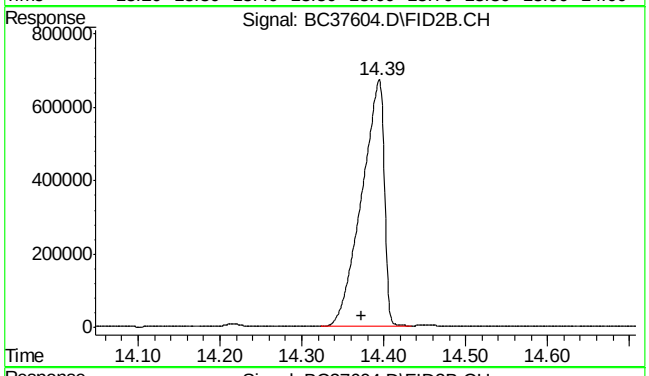
#31 c-16

R.T.: 11.828 min
Delta R.T.: 0.018 min
Response: 1276053
Conc: 188.19 ppm



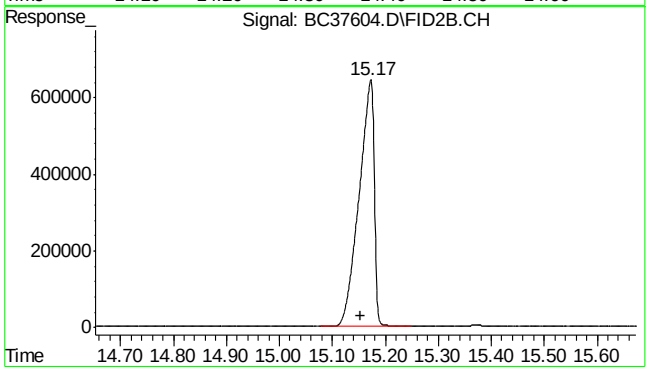
#32 c-18

R.T.: 13.579 min
Delta R.T.: 0.020 min
Response: 1292309
Conc: 190.59 ppm



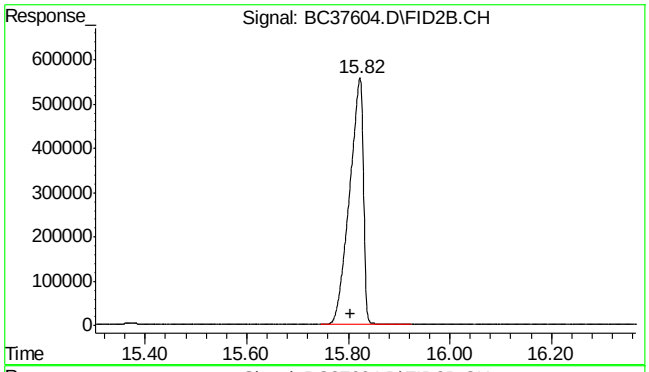
#33 c-19

R.T.: 14.395 min
Delta R.T.: 0.021 min
Response: 1289553
Conc: 228.55 ppm



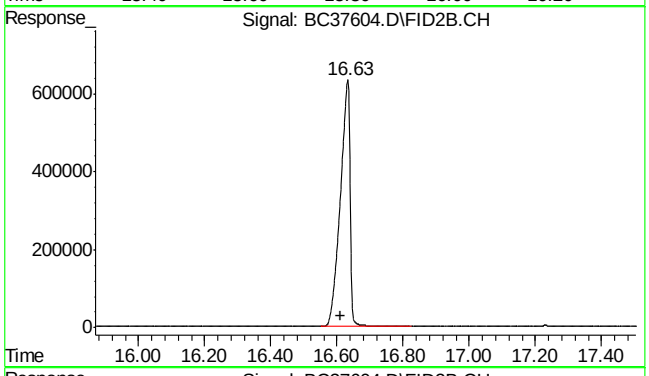
#34 c-20

R.T.: 15.173 min
Delta R.T.: 0.021 min
Response: 1282033
Conc: 227.22 ppm



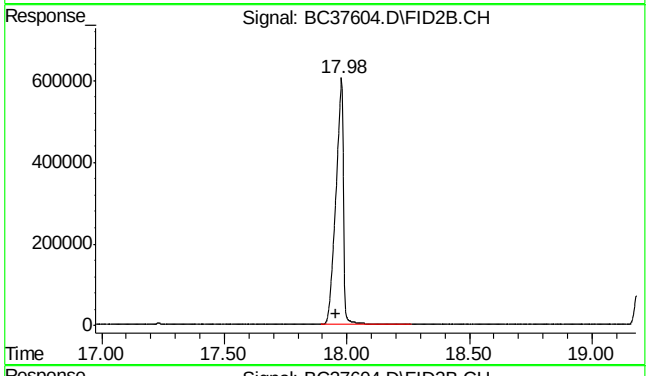
#35 1-chlorooctadecane

R.T.: 15.823 min
Delta R.T.: 0.018 min
Response: 1053091
Conc: 232.43 ppm



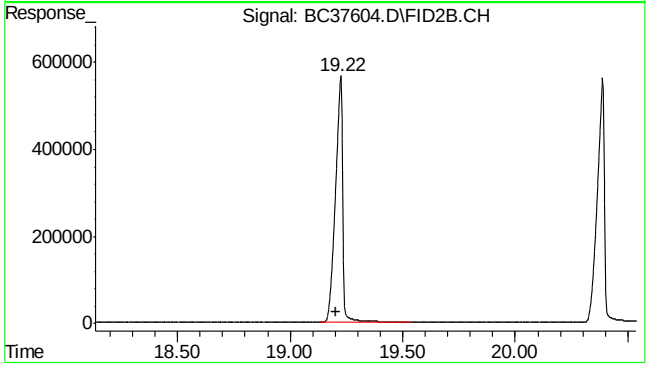
#36 c-22

R.T.: 16.633 min
Delta R.T.: 0.021 min
Response: 1295477
Conc: 229.60 ppm



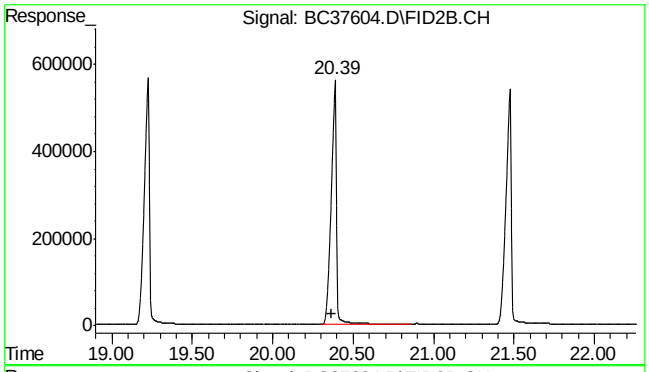
#37 c-24

R.T.: 17.978 min
Delta R.T.: 0.021 min
Response: 1297601
Conc: 229.98 ppm



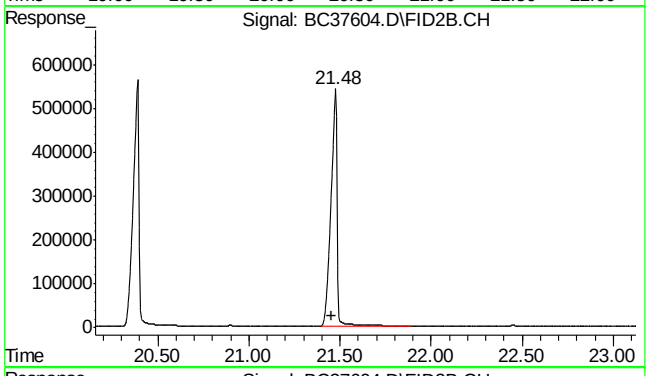
#38 c-26

R.T.: 19.225 min
Delta R.T.: 0.022 min
Response: 1281488
Conc: 227.12 ppm



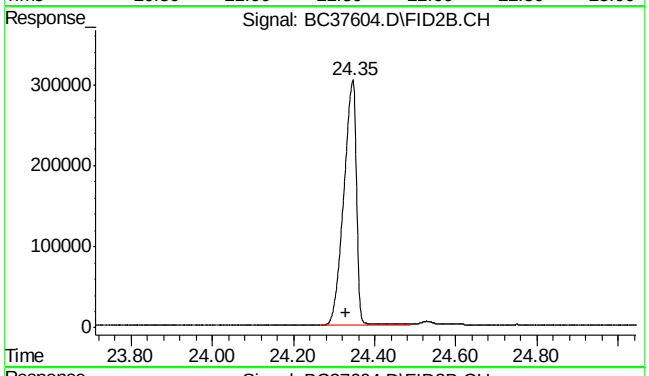
#39 c-28

R.T.: 20.388 min
Delta R.T.: 0.024 min
Response: 1278418
Conc: 226.58 ppm



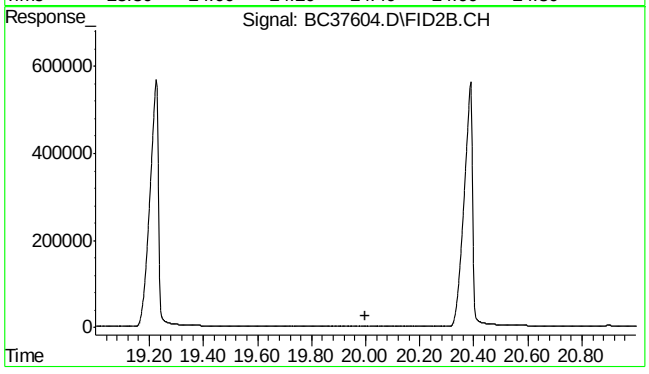
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 1274191
Conc: 225.83 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 651868
Conc: 115.53 ppm m



#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.

10.5.12

10

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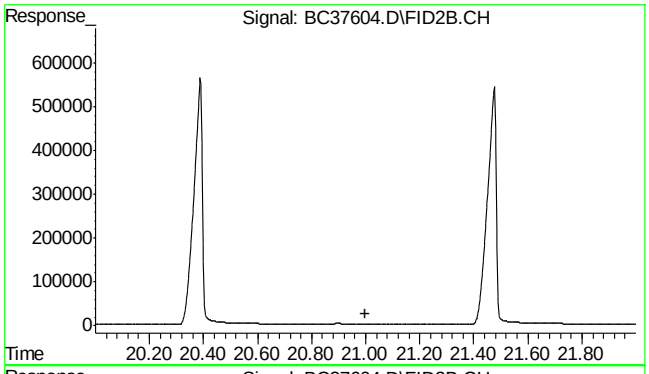
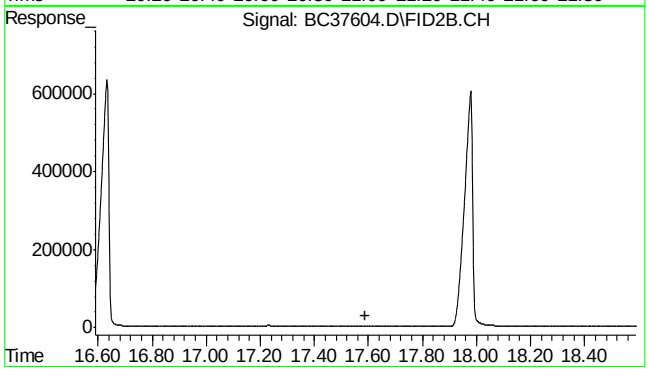


#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.12

10

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Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
03/15/10 14:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37605.D\FID1A.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BC37605.D\FID2B.CH
Acq On : 11 Mar 2010 12:56 pm Operator: KimD
Sample : ic1915-100 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:54:51 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 16:54:39 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s 2-fluorobiphenyl	9.38f	579827	97.297	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 486.48%#				
6) s 2-bromonaphthalene	10.47f	390712	96.747	ppm	m
Spiked Amount 20.000 Range 40 - 140	Recovery = 483.73%#				
11) s o-terphenyl	14.24	663685	97.676	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 488.38%#				
35) s 1-chlorooctadecane	15.81	552736	104.974	ppm	
Spiked Amount 20.000 Range 40 - 140	Recovery = 524.87%#				
Target Compounds					
2) naphthalene	7.30f	648863	97.587	ppm	
3) 2-methylnaphthalene	8.58f	632390	96.605	ppm	
5) acenaphthylene	10.23f	645948	97.786	ppm	
7) acenaphthene	10.59f	667293	98.006	ppm	
8) fluorene	11.54f	637996	97.099	ppm	
9) phenanthrene	13.30	652724	95.822	ppm	
10) anthracene	13.39f	635684	98.150	ppm	
12) fluoranthene	15.55f	650677	99.454	ppm	
13) pyrene	15.94f	670003	100.049	ppm	
14) benzo(a)anthracene	18.26f	563322	97.447	ppm	
15) chrysene	18.34f	641477	104.083	ppm	
16) benzo(b)fluoranthene	20.19f	604618	105.607	ppm	m
17) benzo(k)fluoranthene	20.25f	590419	112.841	ppm	
18) benzo(a)pyrene	20.71f	600924	122.589	ppm	
19) indeno(1,2,3-cd)pyrene	22.39	456239	148.958	ppm	
20) dibenzo(ah)anthracene	22.46	441088	164.913	ppm	
25) h c-9	3.81	664671	103.039	ppm	
26) h c-10	5.18	671725	103.114	ppm	
27) naphthalene #2	7.52	747888	102.819	ppm	
28) c-12	7.70	702393	102.881	ppm	
29) 2-methylnaphthalene #2	8.78	677086	102.780	ppm	
30) c-14	9.88	653334	102.877	ppm	
31) c-16	11.81	657114	102.992	ppm	
32) c-18	13.56	666149	103.094	ppm	
33) c-19	14.38f	664153	103.005	ppm	
34) c-20	15.16f	659928	102.950	ppm	
36) c-22	16.62f	666679	102.924	ppm	
37) c-24	17.96f	668315	103.008	ppm	
38) c-26	19.21f	660648	103.106	ppm	
39) c-28	20.37f	658884	103.078	ppm	
40) h c-30	21.45	657869	103.261	ppm	
41) h c-36	24.33	535301	164.236	ppm	

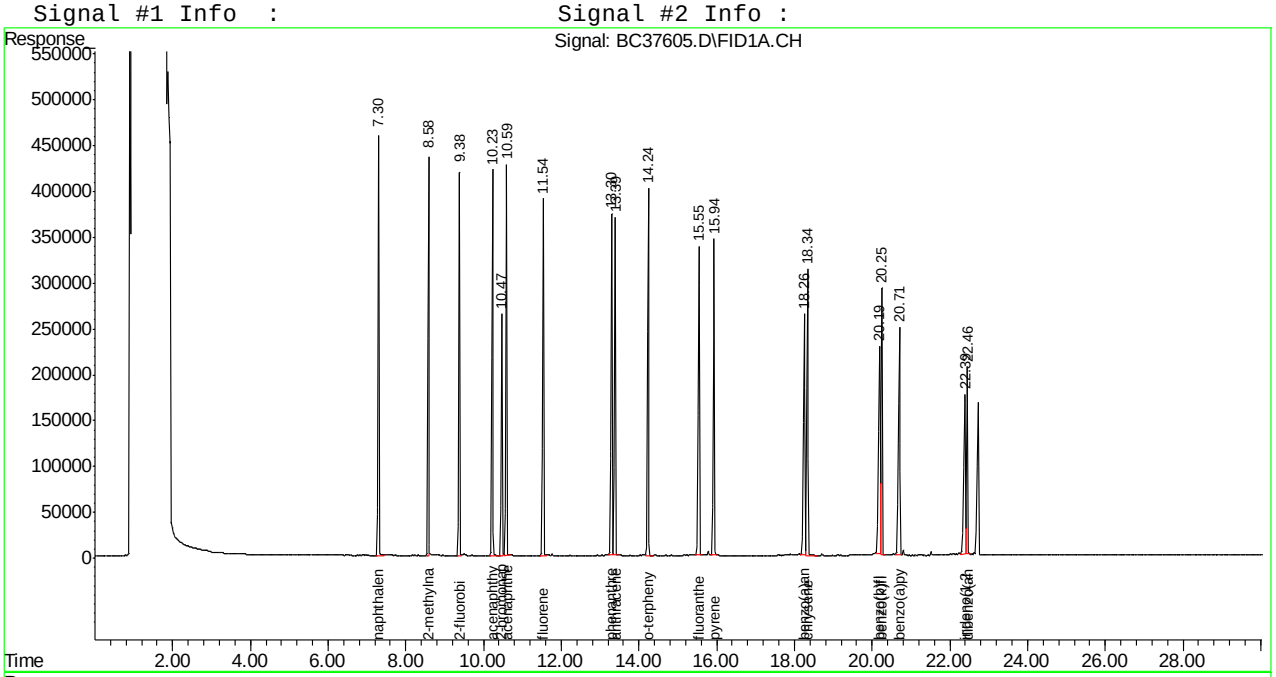
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37605.D EPH031110.M Fri Mar 12 13:46:36 2010 RPGEN1

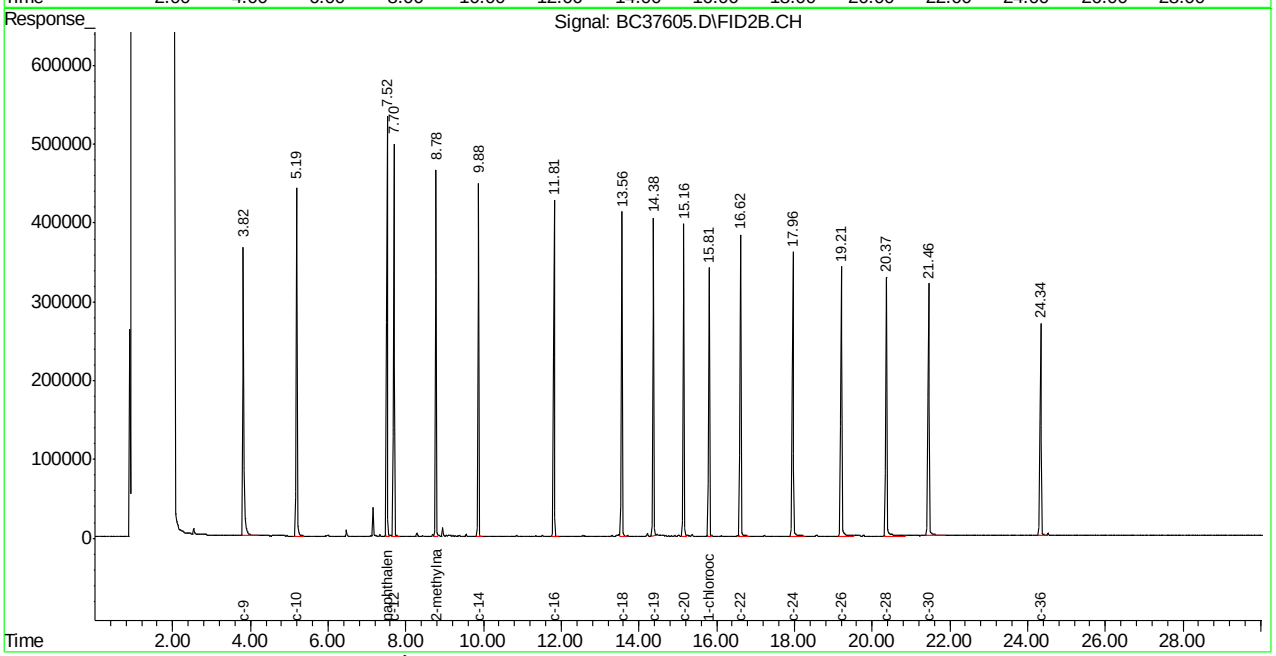
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37605.D\FID1A.CH Vial: 79
Signal #2 : C:\MSDCHEM\1\DATA\BC37605.D\FID2B.CH
Acq On : 11 Mar 2010 12:56 pm Operator: KimD
Sample : ic1915-100 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:56 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 16:54:39 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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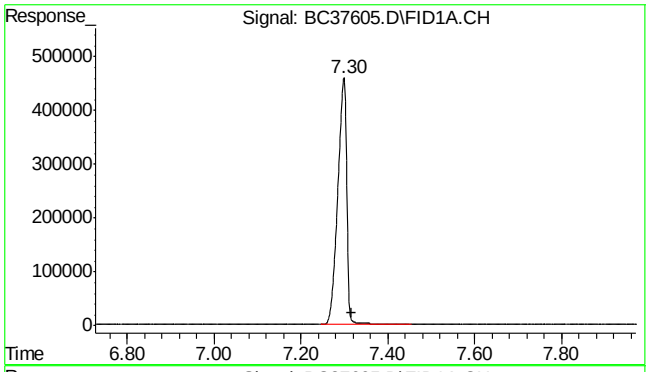
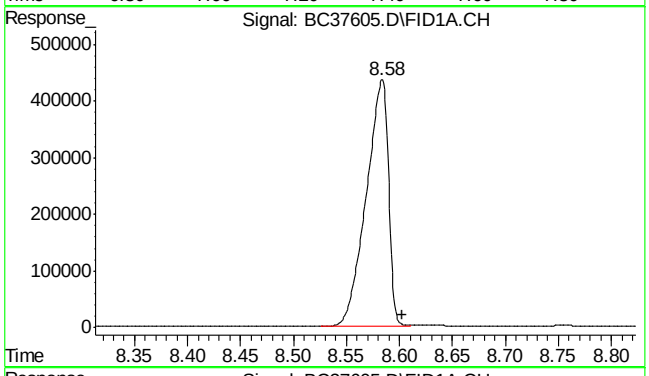


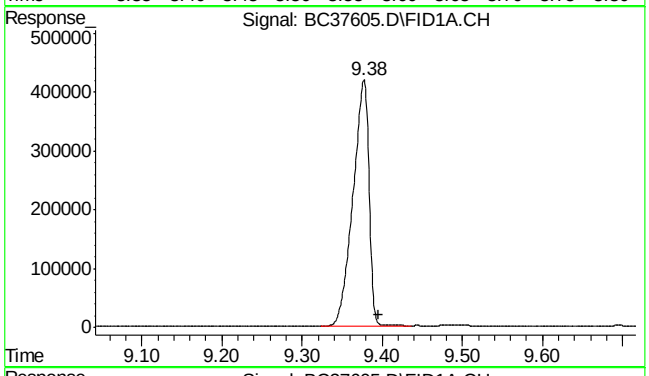
#2 naphthalene

R.T.: 7.299 min
Delta R.T.: -0.018 min
Response: 648863
Conc: 97.59 ppm



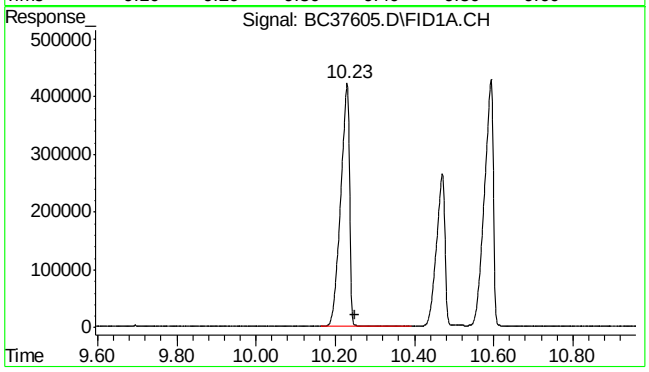
#3 2-methylnaphthalene

R.T.: 8.584 min
Delta R.T.: -0.018 min
Response: 632390
Conc: 96.60 ppm



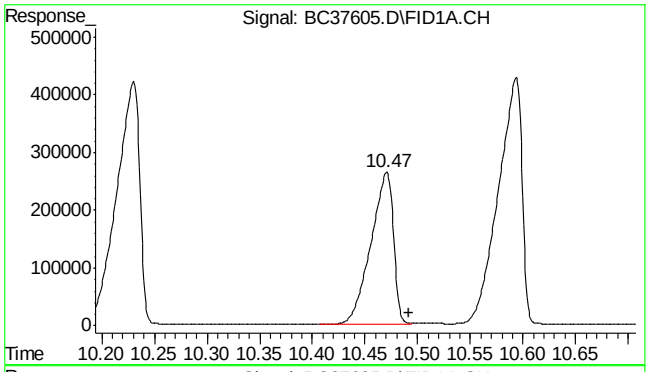
#4 2-fluorobiphenyl

R.T.: 9.377 min
Delta R.T.: -0.018 min
Response: 579827
Conc: 97.30 ppm



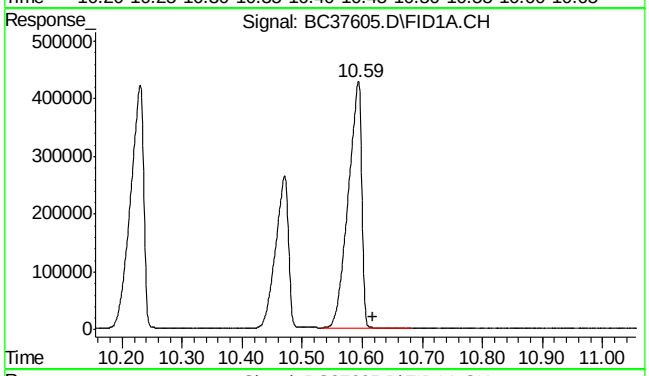
#5 acenaphthylene

R.T.: 10.230 min
Delta R.T.: -0.022 min
Response: 645948
Conc: 97.79 ppm



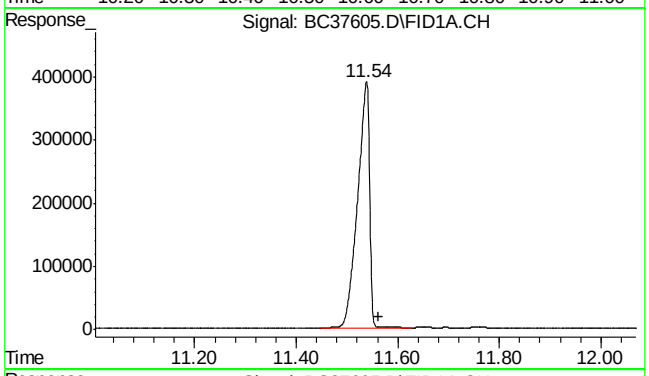
#6 2-bromonaphthalene

R.T.: 10.471 min
Delta R.T.: -0.021 min
Response: 390712
Conc: 96.75 ppm m



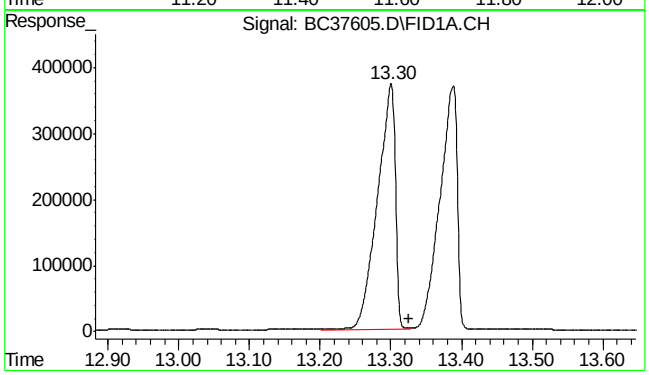
#7 acenaphthene

R.T.: 10.594 min
Delta R.T.: -0.024 min
Response: 667293
Conc: 98.01 ppm



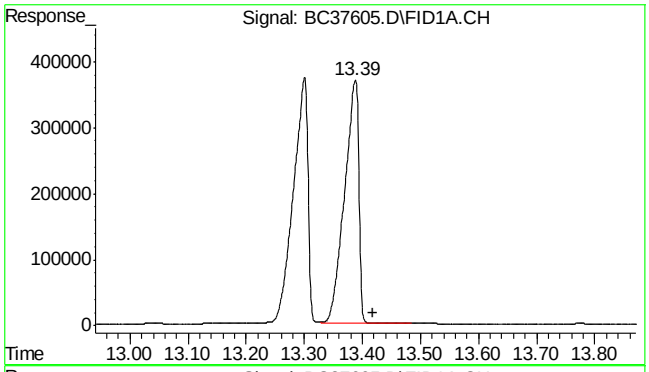
#8 fluorene

R.T.: 11.538 min
Delta R.T.: -0.024 min
Response: 637996
Conc: 97.10 ppm



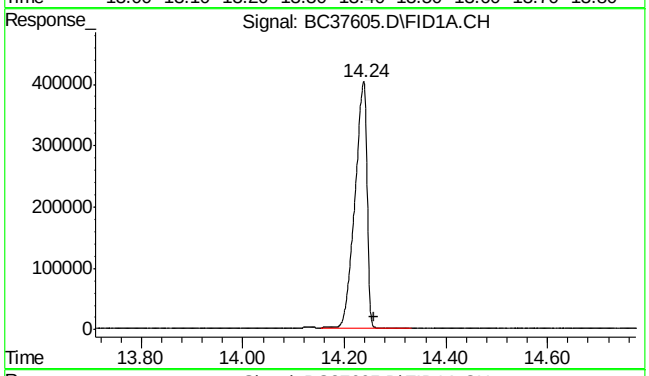
#9 phenanthrene

R.T.: 13.300 min
Delta R.T.: -0.025 min
Response: 652724
Conc: 95.82 ppm



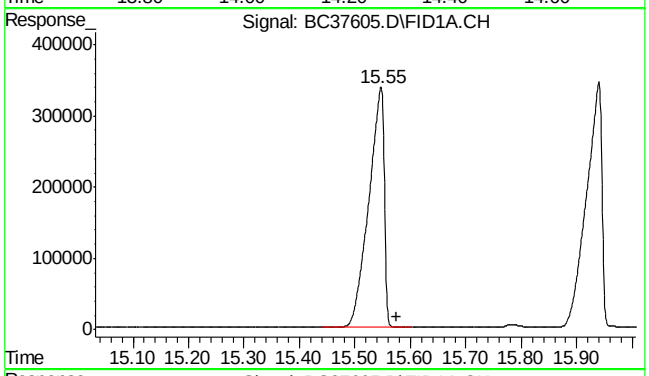
#10 anthracene

R.T.: 13.388 min
Delta R.T.: -0.030 min
Response: 635684
Conc: 98.15 ppm



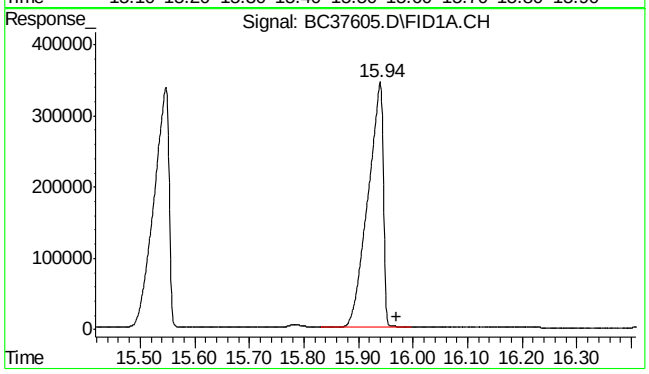
#11 o-terphenyl

R.T.: 14.238 min
Delta R.T.: -0.021 min
Response: 663685
Conc: 97.68 ppm



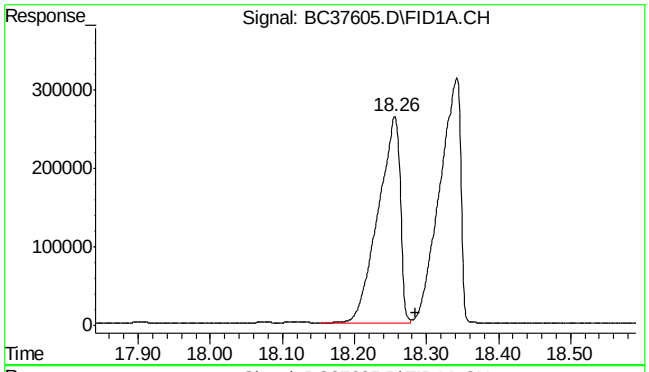
#12 fluoranthene

R.T.: 15.546 min
Delta R.T.: -0.029 min
Response: 650677
Conc: 99.45 ppm



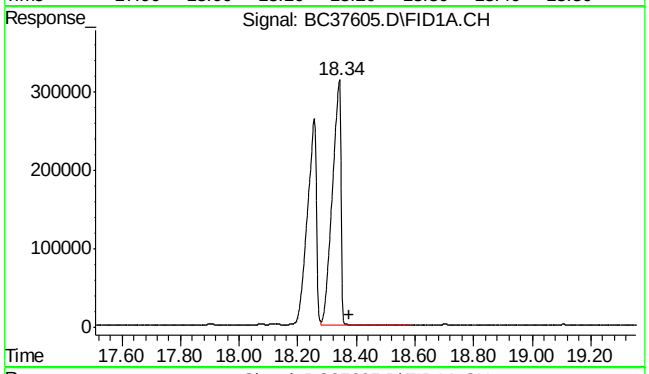
#13 pyrene

R.T.: 15.940 min
Delta R.T.: -0.030 min
Response: 670003
Conc: 100.05 ppm



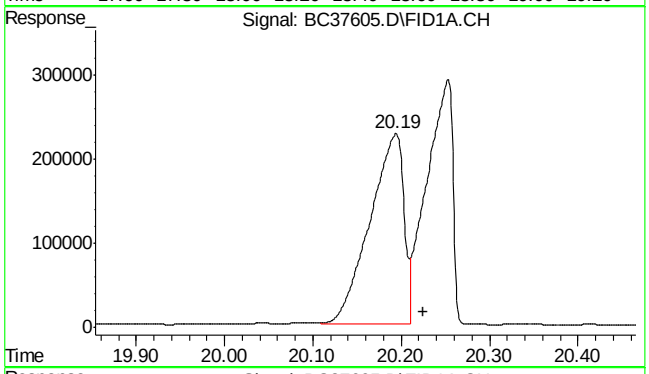
#14 benzo(a)anthracene

R.T.: 18.256 min
Delta R.T.: -0.030 min
Response: 563322
Conc: 97.45 ppm



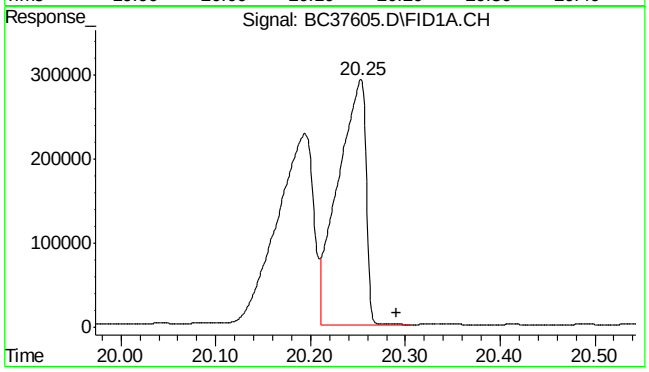
#15 chrysene

R.T.: 18.342 min
Delta R.T.: -0.036 min
Response: 641477
Conc: 104.08 ppm



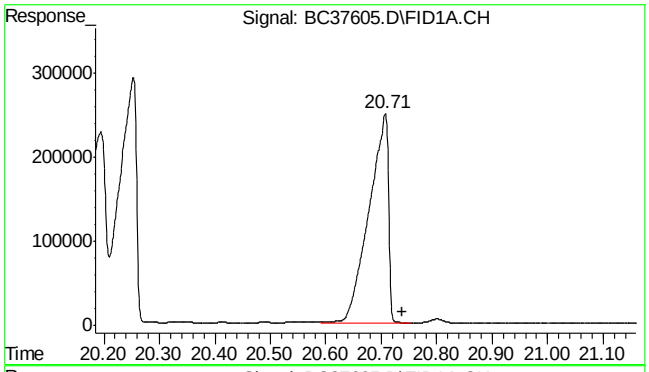
#16 benzo(b)fluoranthene

R.T.: 20.194 min
Delta R.T.: -0.031 min
Response: 604618
Conc: 105.61 ppm m



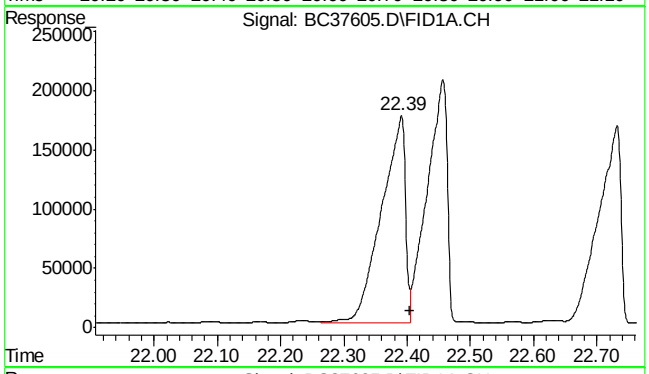
#17 benzo(k)fluoranthene

R.T.: 20.253 min
Delta R.T.: -0.037 min
Response: 590419
Conc: 112.84 ppm



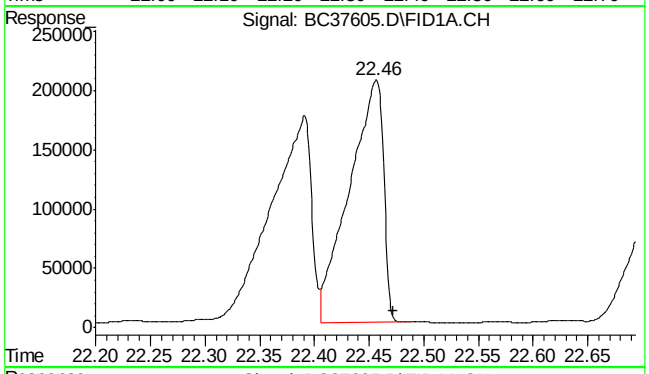
#18 benzo(a)pyrene

R.T.: 20.707 min
Delta R.T.: -0.031 min
Response: 600924
Conc: 122.59 ppm



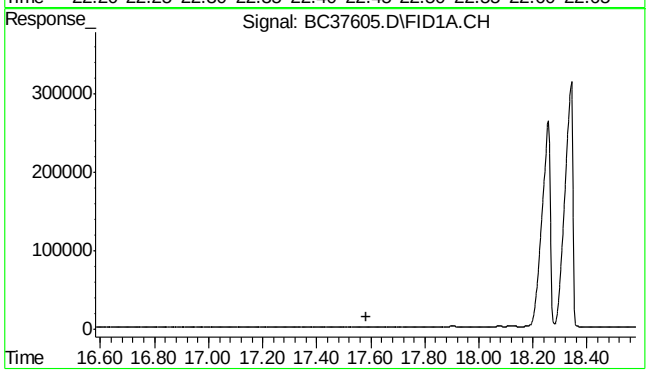
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.391 min
Delta R.T.: -0.013 min
Response: 456239
Conc: 148.96 ppm



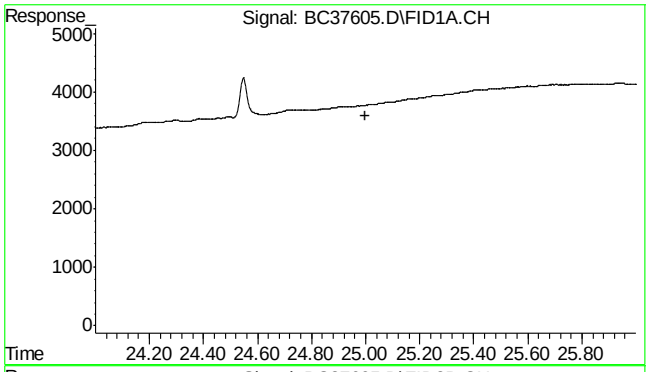
#20 dibenzo(ah)anthracene

R.T.: 22.456 min
Delta R.T.: -0.016 min
Response: 441088
Conc: 164.91 ppm



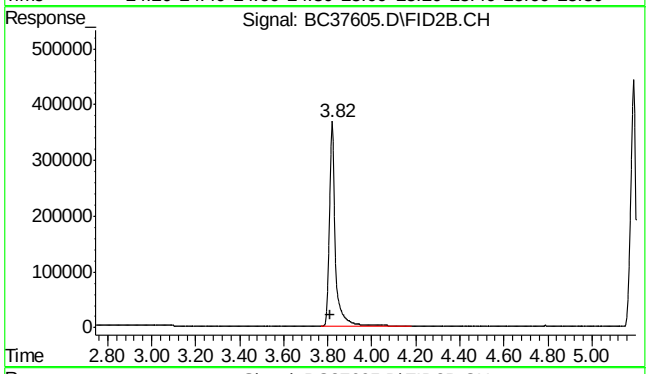
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



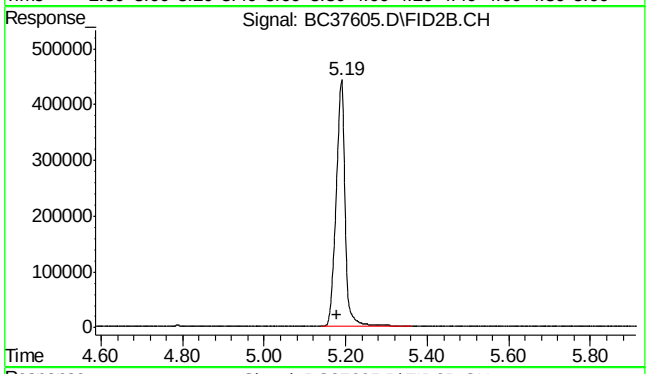
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



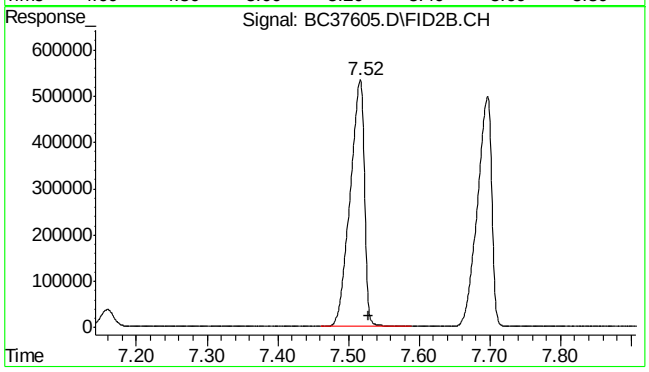
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 664671
Conc: 103.04 ppm m



#26 c-10

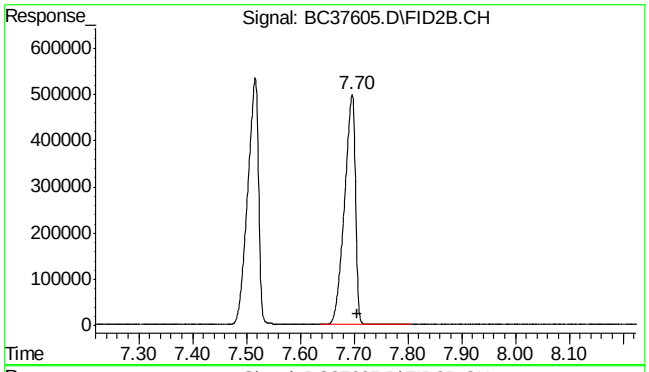
R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 671725
Conc: 103.11 ppm m



#27 naphthalene #2

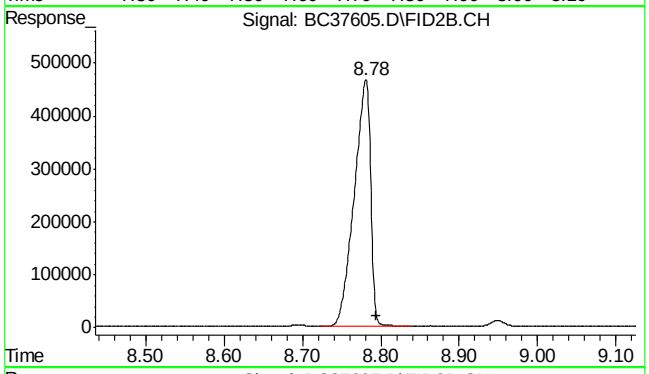
R.T.: 7.516 min
Delta R.T.: -0.011 min
Response: 747888
Conc: 102.82 ppm

ACCUTEST Laboratories F71731



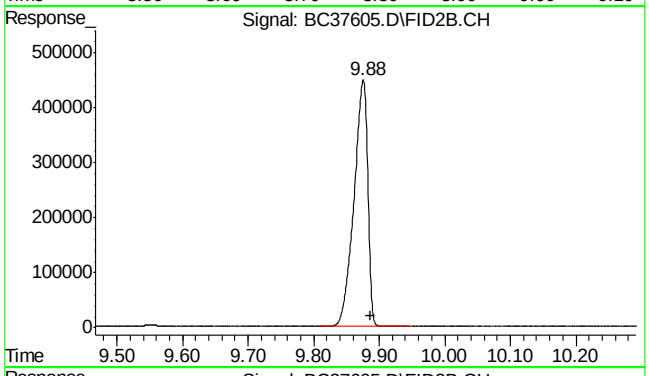
#28 c-12

R.T.: 7.696 min
Delta R.T.: -0.011 min
Response: 702393
Conc: 102.88 ppm



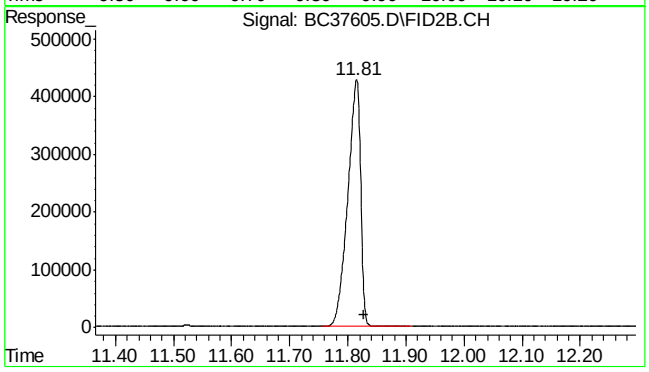
#29 2-methylnaphthalene #2

R.T.: 8.781 min
Delta R.T.: -0.013 min
Response: 677086
Conc: 102.78 ppm



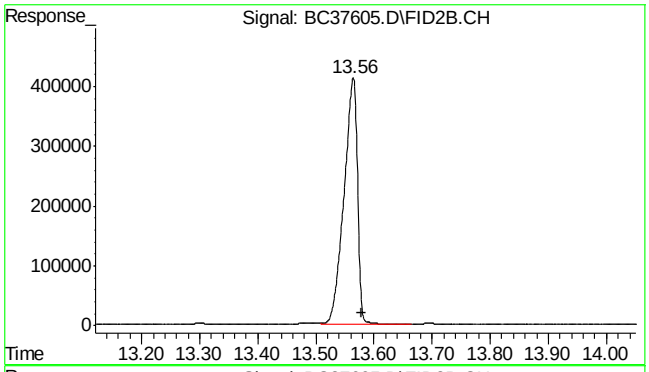
#30 c-14

R.T.: 9.876 min
Delta R.T.: -0.011 min
Response: 653334
Conc: 102.88 ppm



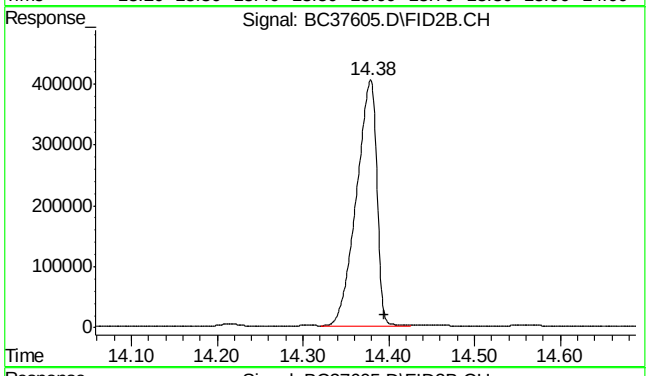
#31 c-16

R.T.: 11.815 min
Delta R.T.: -0.013 min
Response: 657114
Conc: 102.99 ppm



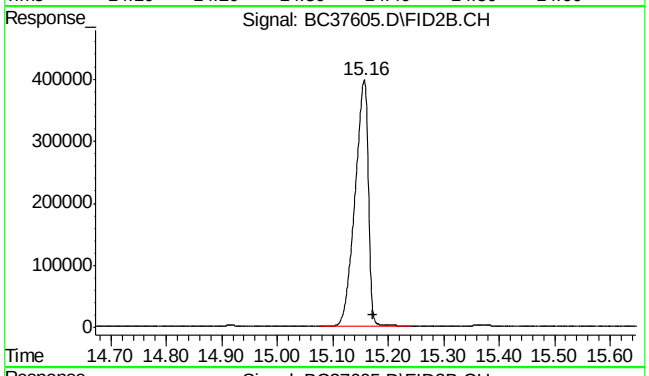
#32 c-18

R.T.: 13.564 min
Delta R.T.: -0.015 min
Response: 666149
Conc: 103.09 ppm



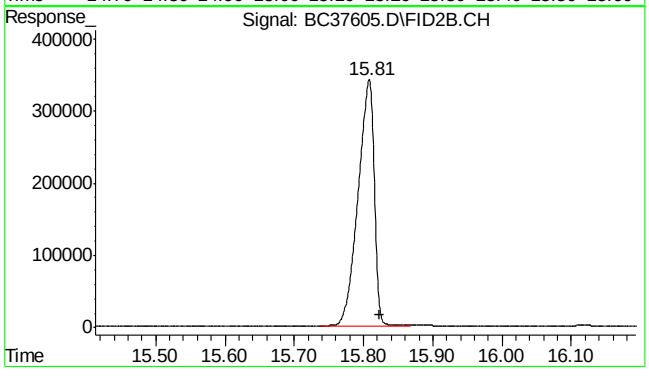
#33 c-19

R.T.: 14.379 min
Delta R.T.: -0.016 min
Response: 664153
Conc: 103.01 ppm



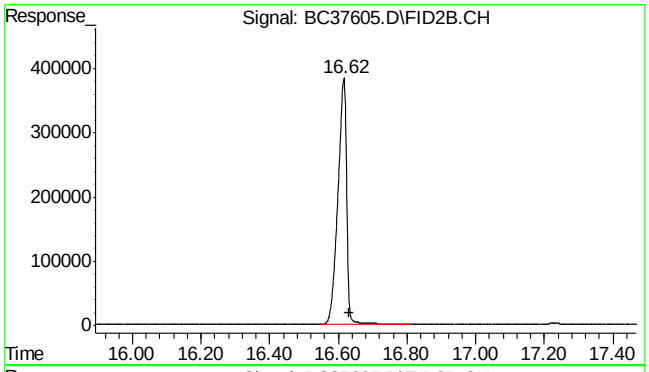
#34 c-20

R.T.: 15.157 min
Delta R.T.: -0.016 min
Response: 659928
Conc: 102.95 ppm



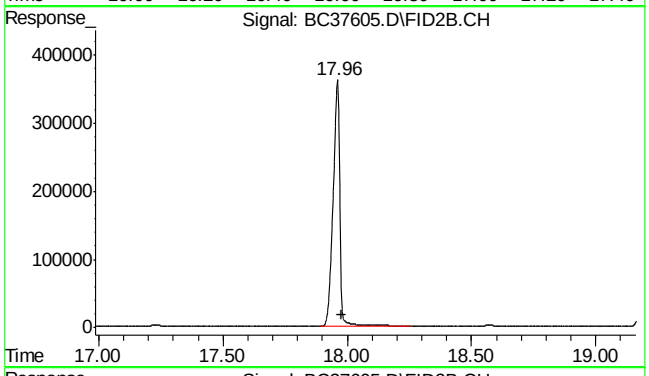
#35 1-chlorooctadecane

R.T.: 15.808 min
Delta R.T.: -0.015 min
Response: 552736
Conc: 104.97 ppm



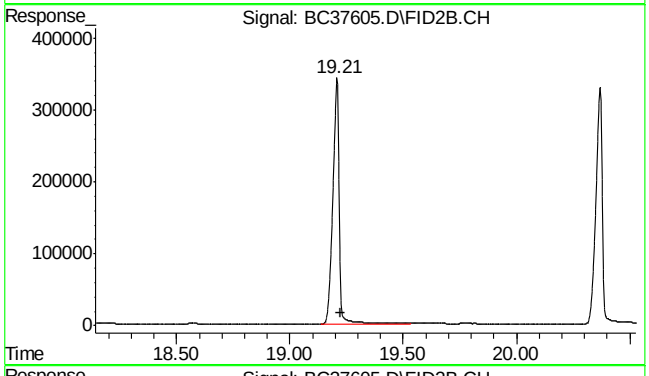
#36 c-22

R.T.: 16.616 min
Delta R.T.: -0.017 min
Response: 666679
Conc: 102.92 ppm



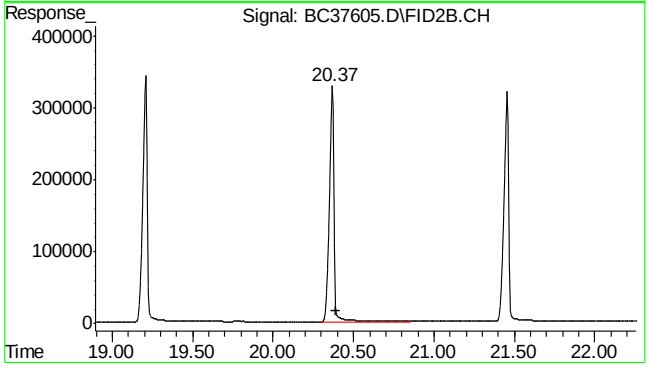
#37 c-24

R.T.: 17.961 min
Delta R.T.: -0.017 min
Response: 668315
Conc: 103.01 ppm



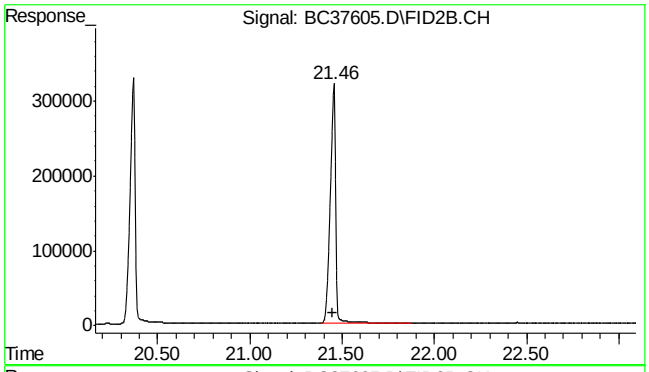
#38 c-26

R.T.: 19.208 min
Delta R.T.: -0.017 min
Response: 660648
Conc: 103.11 ppm



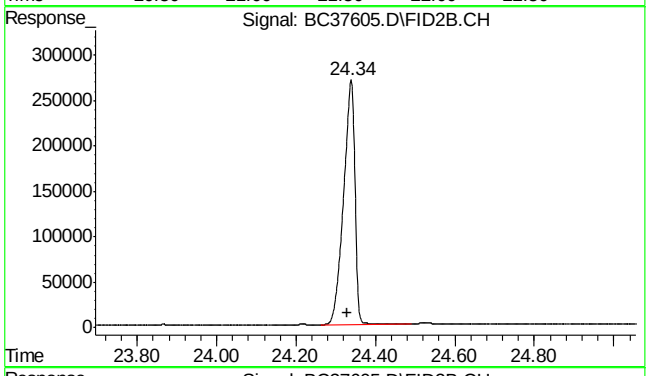
#39 c-28

R.T.: 20.368 min
Delta R.T.: -0.020 min
Response: 658884
Conc: 103.08 ppm



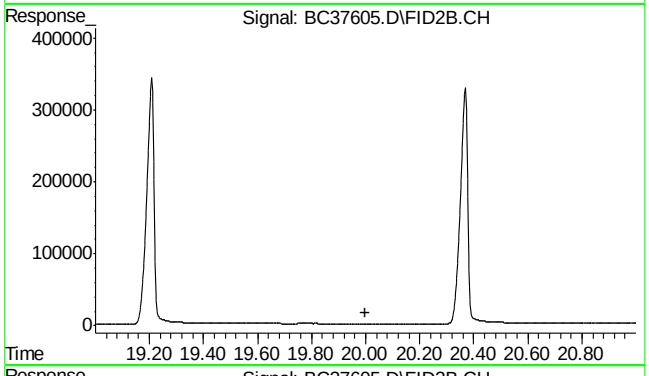
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 657869
Conc: 103.26 ppm m



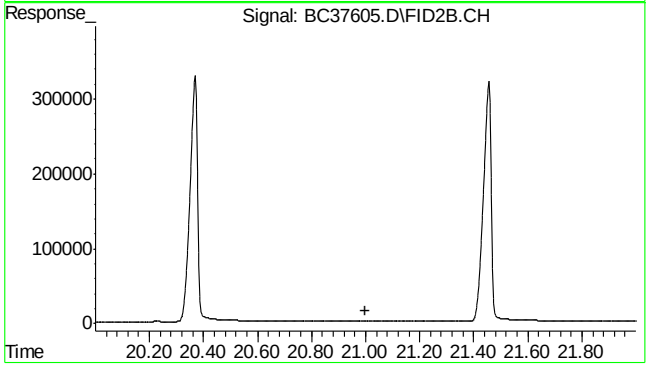
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 535301
Conc: 164.24 ppm m



#42 BHT

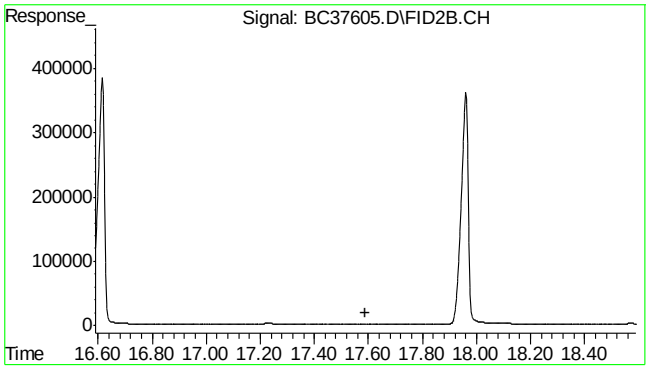
R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.

10.5.13 10



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.13 10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37606.D\FID1A.CH Vial: 81
Signal #2 : C:\MSDCHEM\1\DATA\BC37606.D\FID2B.CH
Acq On : 3-11-10 01:35:58 PM Operator: KimD
Sample : icc1915-50 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:56:59 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 16:56:49 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	296964	50.514 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 252.57%#	
6) s 2-bromonaphthalene	10.46	199404	50.192 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 250.96%#	
11) s o-terphenyl	14.23	343933	51.213 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 256.07%#	
35) s 1-chlorooctadecane	15.80	254485	47.158 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 235.79%#	
Target Compounds			
2) naphthalene	7.29	331679	50.493 ppm
3) 2-methylnaphthalene	8.57	322343	50.092 ppm
5) acenaphthylene	10.22	332158	50.846 ppm
7) acenaphthene	10.58	342993	50.883 ppm
8) fluorene	11.53	325894	50.329 ppm
9) phenanthrene	13.29	334838	50.204 ppm
10) anthracene	13.37	329322	51.322 ppm
12) fluoranthene	15.53	337830	51.778 ppm
13) pyrene	15.92f	346817	51.776 ppm
14) benzo(a)anthracene	18.24	290455	53.973 ppm
15) chrysene	18.32	335601	53.364 ppm
16) benzo(b)fluoranthene	20.17	317366	53.922 ppm
17) benzo(k)fluoranthene	20.23f	326445	58.626 ppm
18) benzo(a)pyrene	20.68	325711	59.702 ppm
25) h c-9	3.81	329242	50.276 ppm
26) h c-10	5.18	332984	50.331 ppm
27) naphthalene #2	7.51	363854	49.327 ppm
28) c-12	7.69	341218	49.269 ppm
29) 2-methylnaphthalene #2	8.77	327335	49.007 ppm
30) c-14	9.87	313899	48.727 ppm
31) c-16	11.80	314609	48.583 ppm
32) c-18	13.55	319568	48.703 ppm
33) c-19	14.37	316695	48.390 ppm
34) c-20	15.14	315165	48.452 ppm
36) c-22	16.60	318339	48.438 ppm
37) c-24	17.95	317965	48.282 ppm
38) c-26	19.20	317087	48.730 ppm
39) c-28	20.36	311880	43.990 ppm
40) h c-30	21.45	314303	44.255 ppm

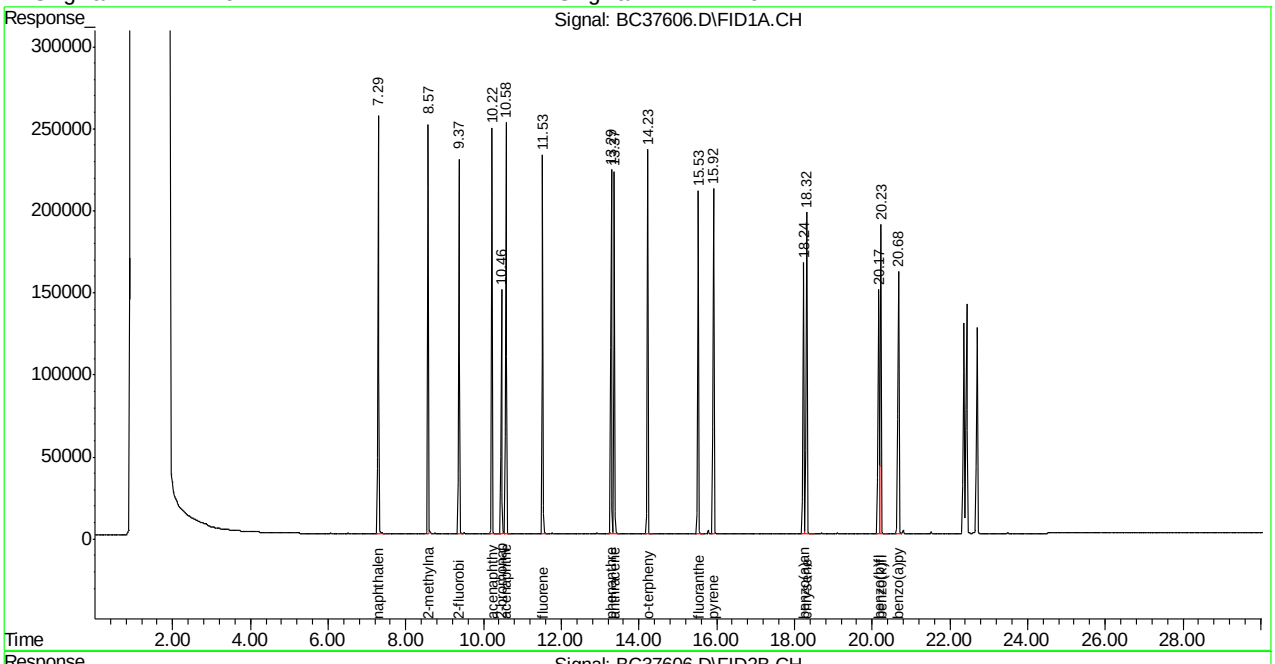
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37606.D EPH031110.M Fri Mar 12 13:47:08 2010 RPGEN1

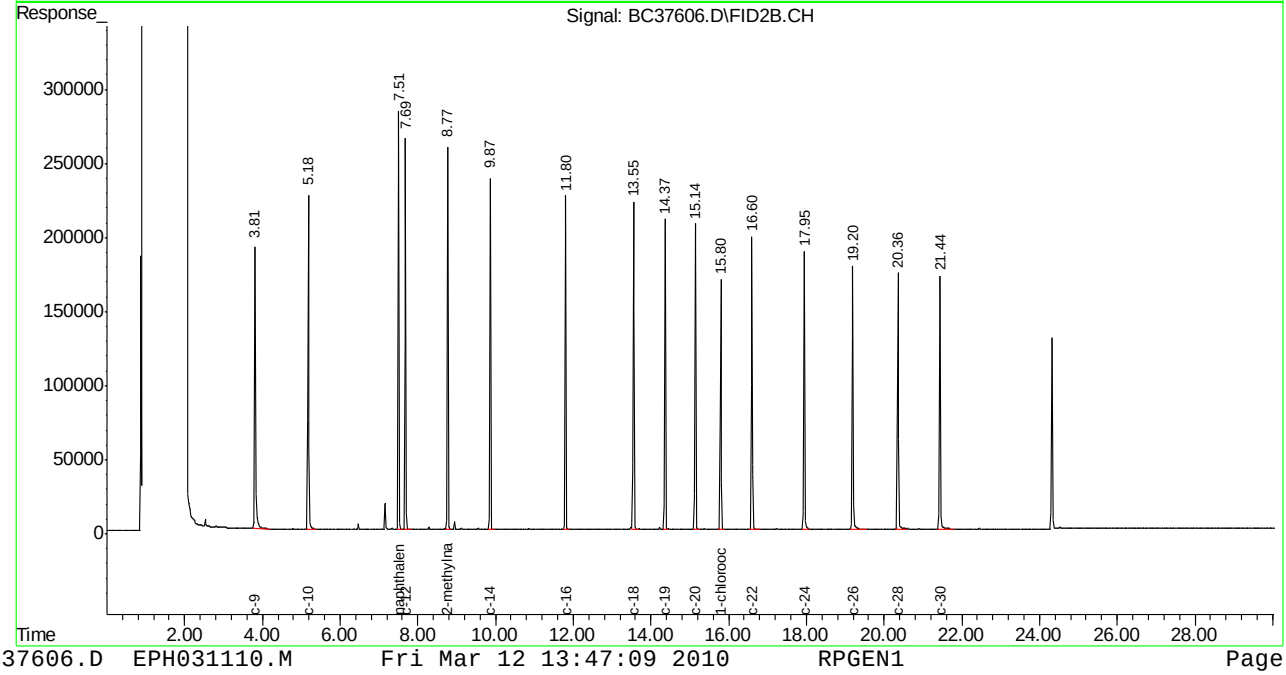
Quantitation Report (QT Reviewed)

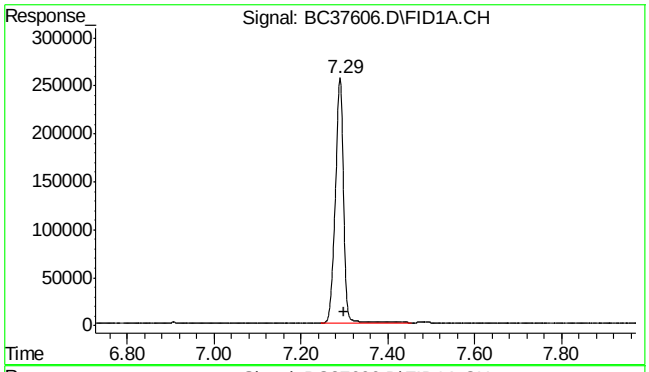
Signal #1 : C:\MSDCHEM\1\DATA\BC37606.D\FID1A.CH Vial: 81
Signal #2 : C:\MSDCHEM\1\DATA\BC37606.D\FID2B.CH
Acq On : 3-11-10 01:35:58 PM Operator: KimD
Sample : icc1915-50 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:58 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 16:56:49 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

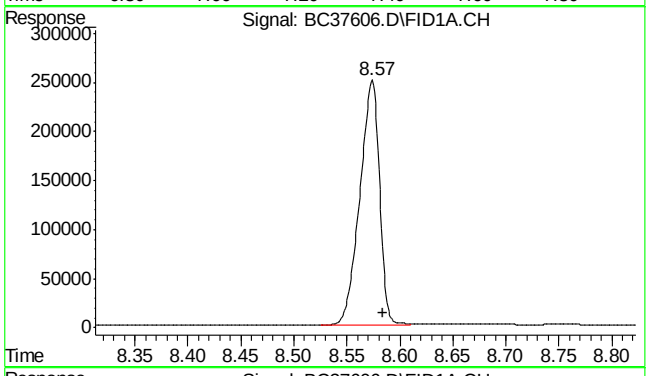






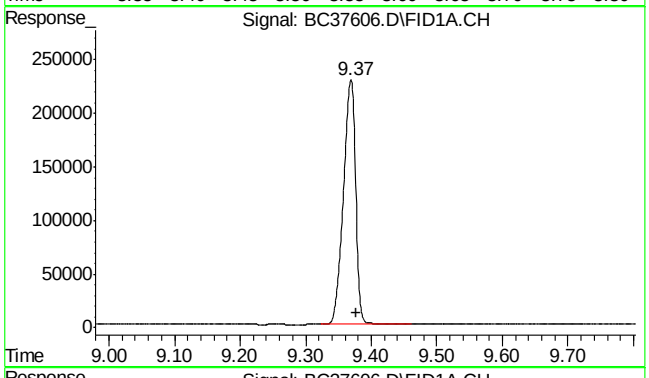
#2 naphthalene

R.T.: 7.290 min
Delta R.T.: -0.009 min
Response: 331679
Conc: 50.49 ppm



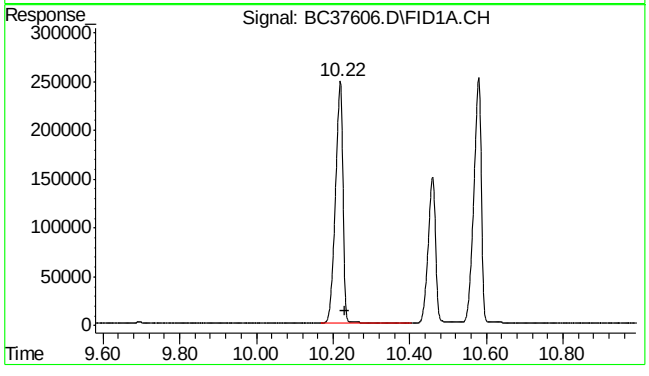
#3 2-methylnaphthalene

R.T.: 8.574 min
Delta R.T.: -0.010 min
Response: 322343
Conc: 50.09 ppm



#4 2-fluorobiphenyl

R.T.: 9.369 min
Delta R.T.: -0.009 min
Response: 296964
Conc: 50.51 ppm



#5 acenaphthylene

R.T.: 10.219 min
Delta R.T.: -0.011 min
Response: 332158
Conc: 50.85 ppm

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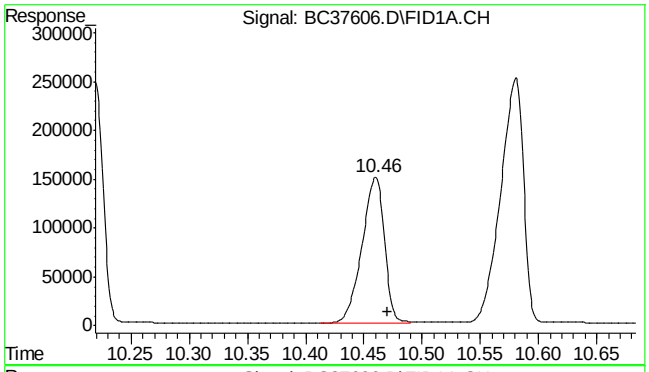
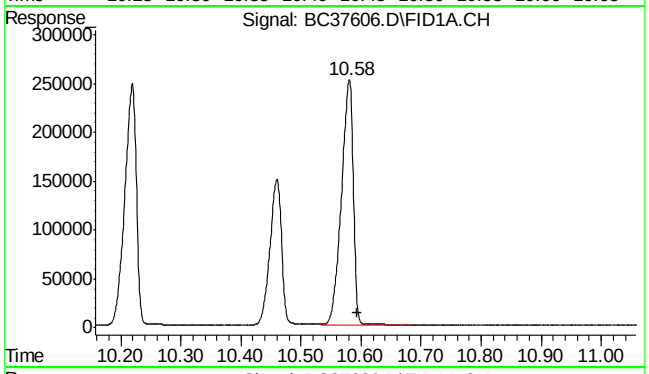


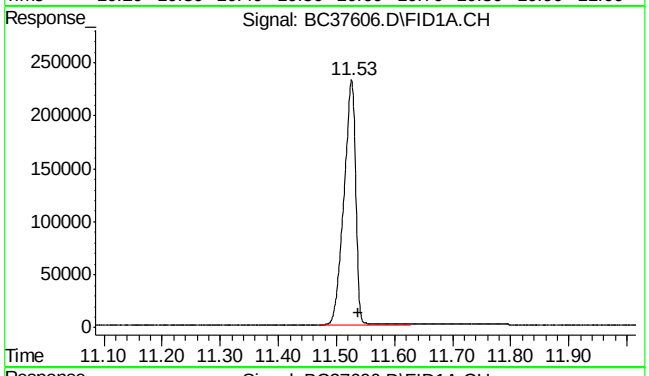
#6 2-bromonaphthalene

R.T.: 10.460 min
Delta R.T.: -0.010 min
Response: 199404
Conc: 50.19 ppm



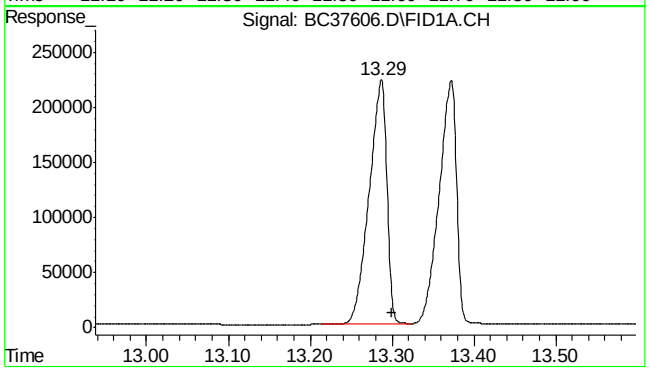
#7 acenaphthene

R.T.: 10.580 min
Delta R.T.: -0.014 min
Response: 342993
Conc: 50.88 ppm



#8 fluorene

R.T.: 11.525 min
Delta R.T.: -0.013 min
Response: 325894
Conc: 50.33 ppm



#9 phenanthrene

R.T.: 13.287 min
Delta R.T.: -0.013 min
Response: 334838
Conc: 50.20 ppm

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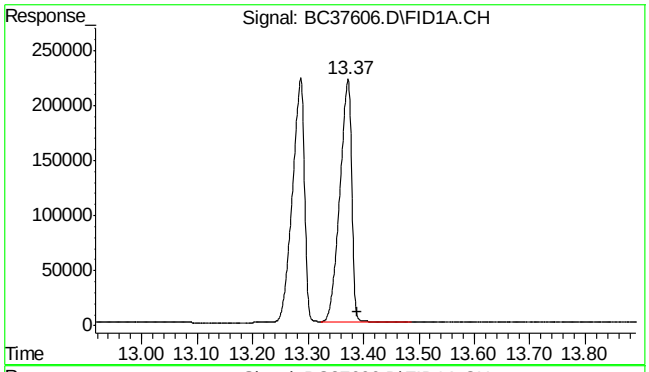
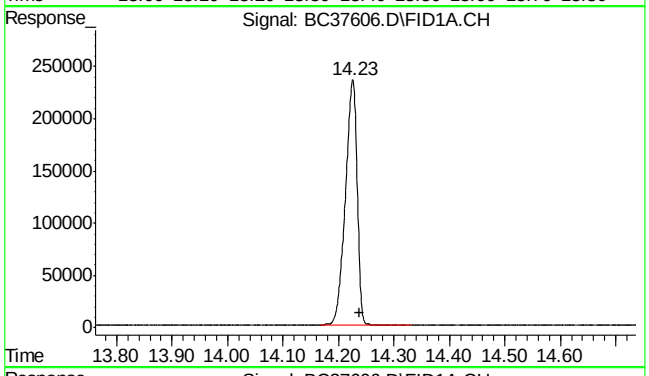


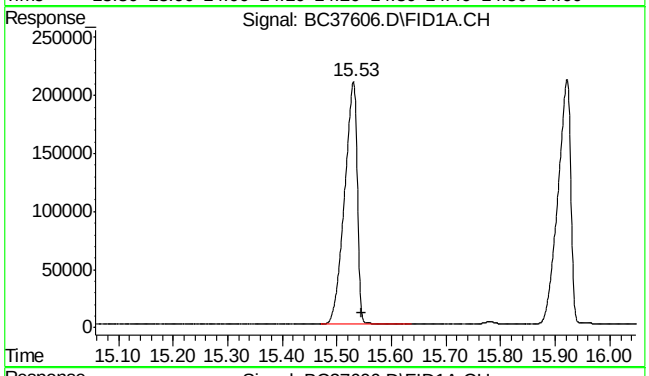
#10 anthracene

R.T.: 13.372 min
Delta R.T.: -0.016 min
Response: 329322
Conc: 51.32 ppm



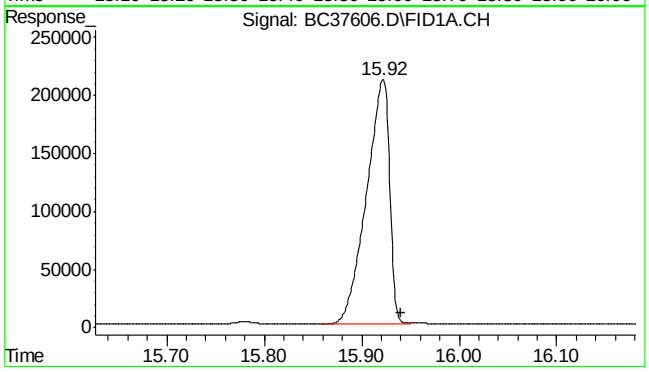
#11 o-terphenyl

R.T.: 14.225 min
Delta R.T.: -0.013 min
Response: 343933
Conc: 51.21 ppm



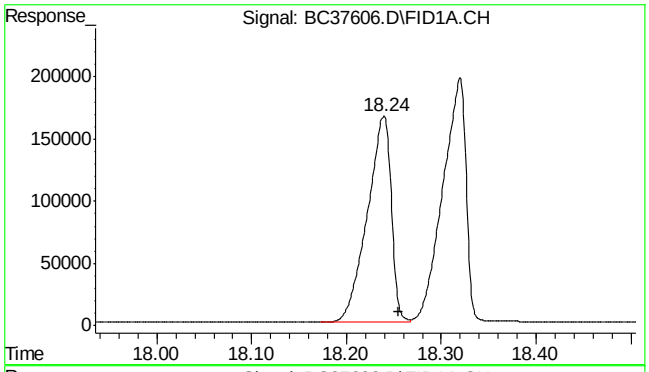
#12 fluoranthene

R.T.: 15.530 min
Delta R.T.: -0.016 min
Response: 337830
Conc: 51.78 ppm



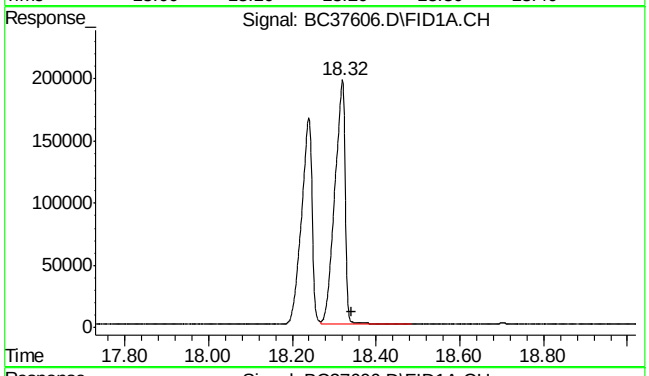
#13 pyrene

R.T.: 15.921 min
Delta R.T.: -0.019 min
Response: 346817
Conc: 51.78 ppm



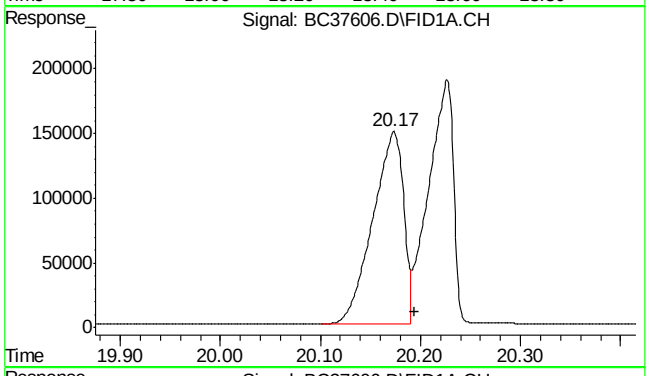
#14 benzo(a)anthracene

R.T.: 18.239 min
Delta R.T.: -0.016 min
Response: 290455
Conc: 53.97 ppm



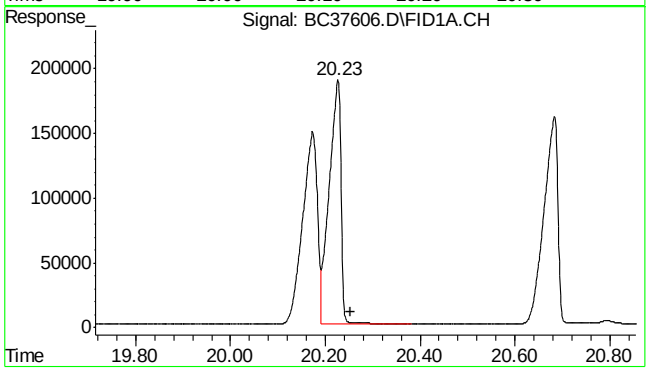
#15 chrysene

R.T.: 18.319 min
Delta R.T.: -0.023 min
Response: 335601
Conc: 53.36 ppm



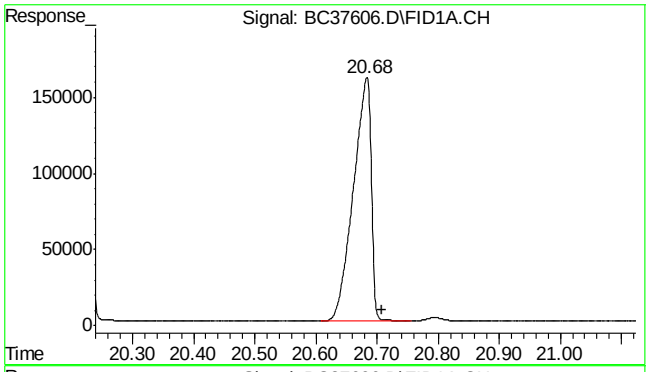
#16 benzo(b)fluoranthene

R.T.: 20.173 min
Delta R.T.: -0.021 min
Response: 317366
Conc: 53.92 ppm



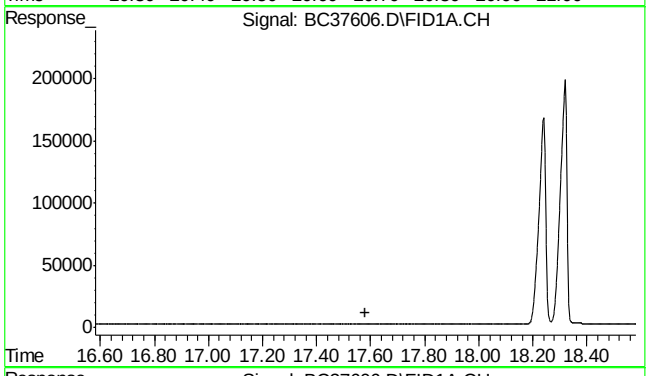
#17 benzo(k)fluoranthene

R.T.: 20.226 min
Delta R.T.: -0.027 min
Response: 326445
Conc: 58.63 ppm



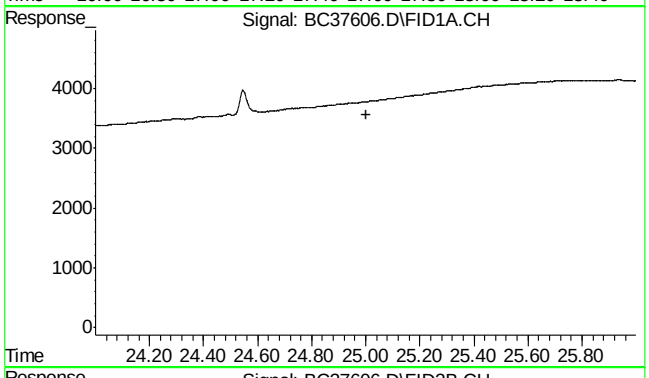
#18 benzo(a)pyrene

R.T.: 20.684 min
Delta R.T.: -0.024 min
Response: 325711
Conc: 59.70 ppm



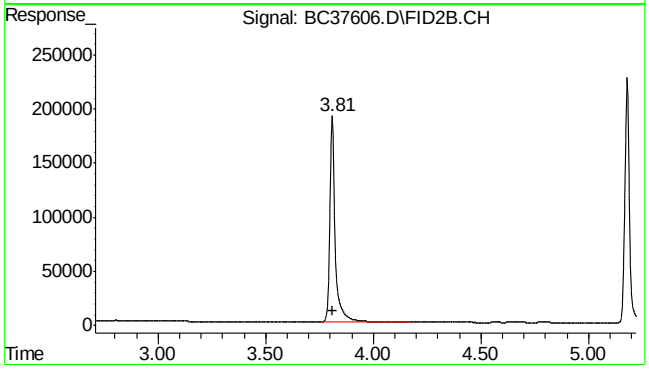
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



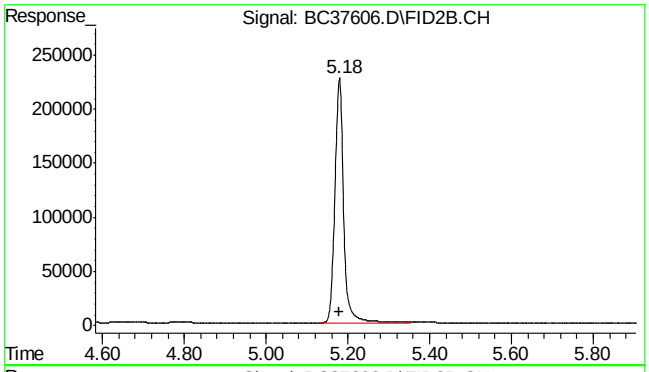
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



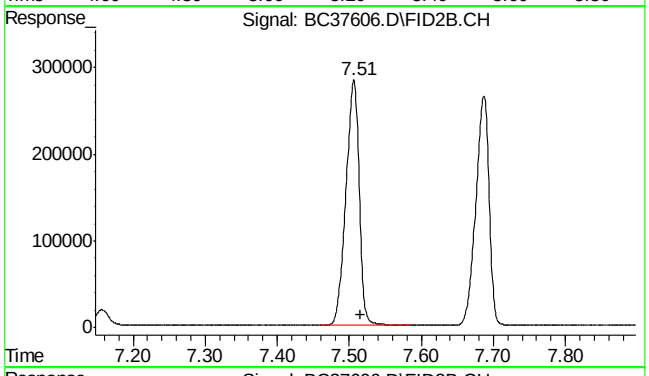
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 329242
Conc: 50.28 ppm m



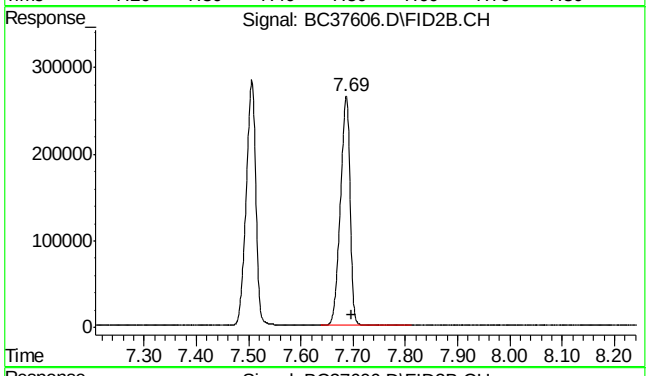
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 332984
Conc: 50.33 ppm m



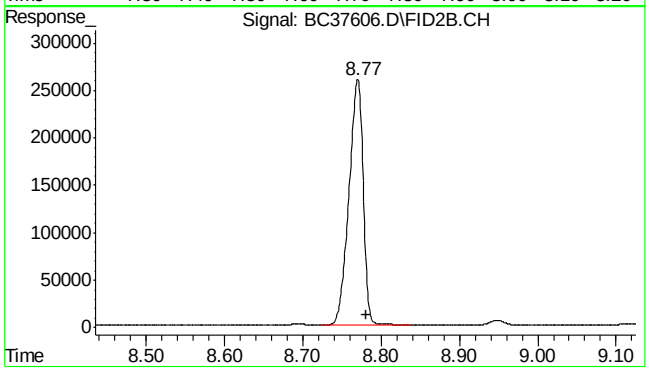
#27 naphthalene #2

R.T.: 7.506 min
Delta R.T.: -0.010 min
Response: 363854
Conc: 49.33 ppm



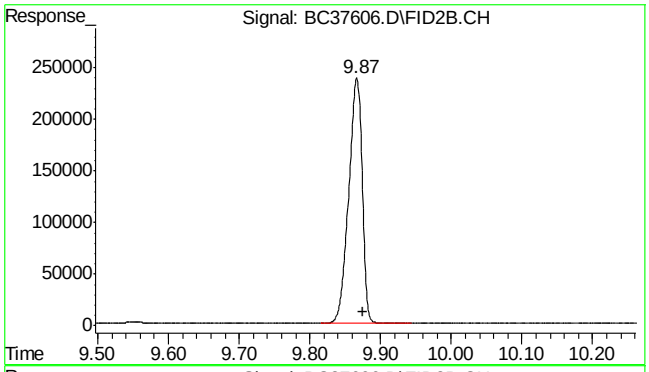
#28 c-12

R.T.: 7.687 min
Delta R.T.: -0.010 min
Response: 341218
Conc: 49.27 ppm



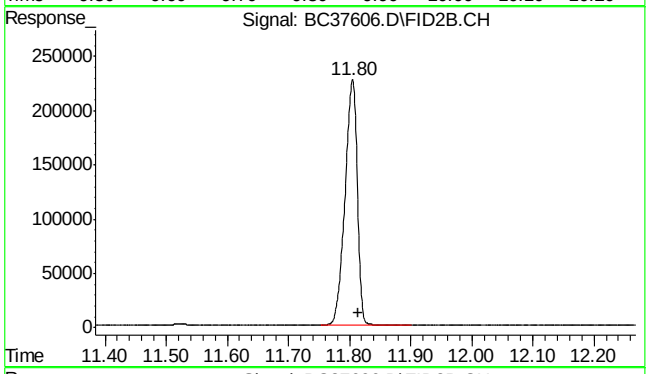
#29 2-methylnaphthalene #2

R.T.: 8.770 min
Delta R.T.: -0.010 min
Response: 327335
Conc: 49.01 ppm



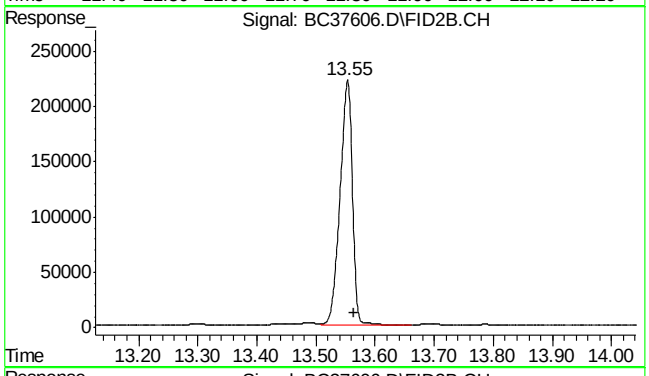
#30 c-14

R.T.: 9.866 min
Delta R.T.: -0.010 min
Response: 313899
Conc: 48.73 ppm



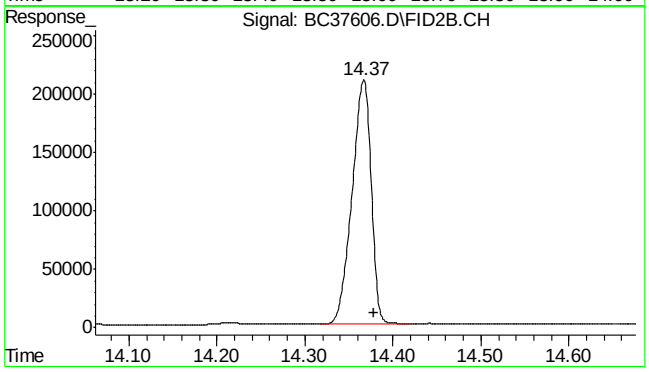
#31 c-16

R.T.: 11.804 min
Delta R.T.: -0.010 min
Response: 314609
Conc: 48.58 ppm



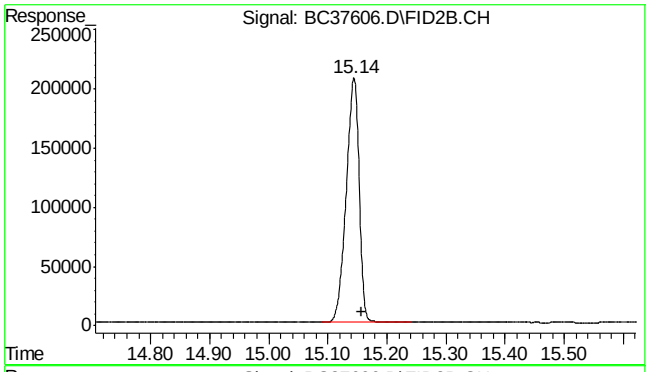
#32 c-18

R.T.: 13.554 min
Delta R.T.: -0.010 min
Response: 319568
Conc: 48.70 ppm



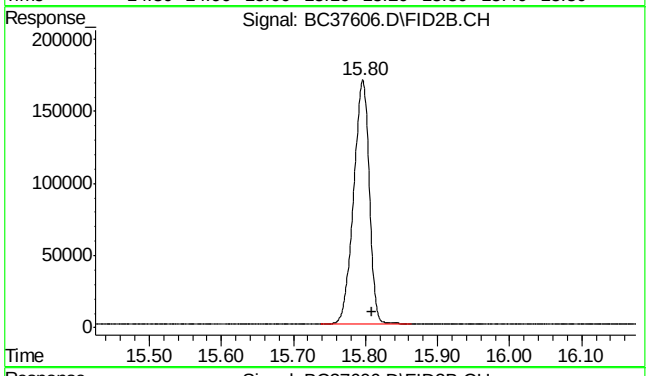
#33 c-19

R.T.: 14.367 min
Delta R.T.: -0.012 min
Response: 316695
Conc: 48.39 ppm



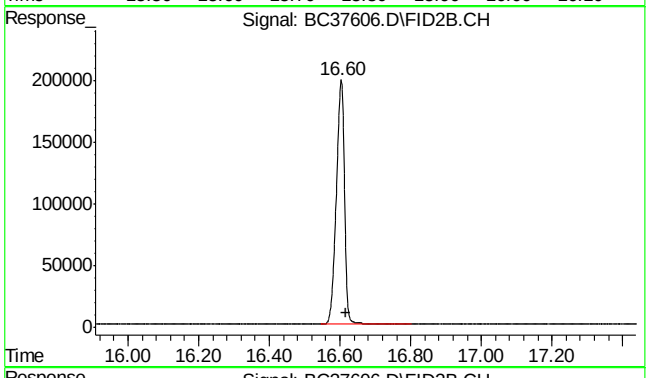
#34 c-20

R.T.: 15.144 min
Delta R.T.: -0.014 min
Response: 315165
Conc: 48.45 ppm



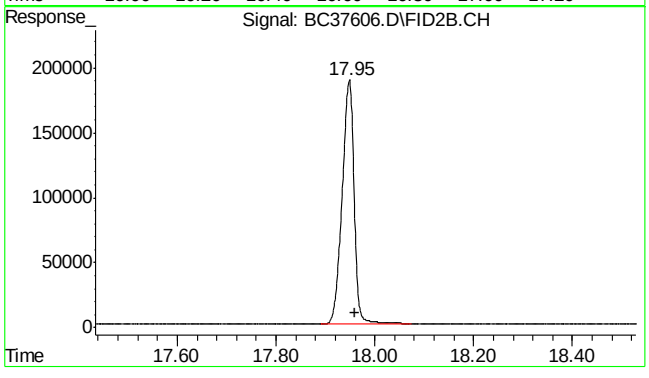
#35 1-chlorooctadecane

R.T.: 15.796 min
Delta R.T.: -0.012 min
Response: 254485
Conc: 47.16 ppm



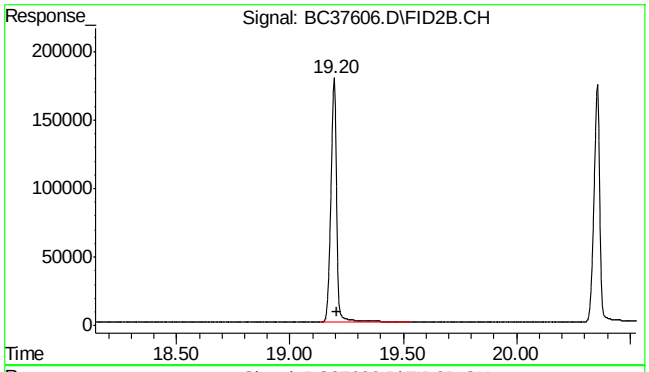
#36 c-22

R.T.: 16.603 min
Delta R.T.: -0.013 min
Response: 318339
Conc: 48.44 ppm



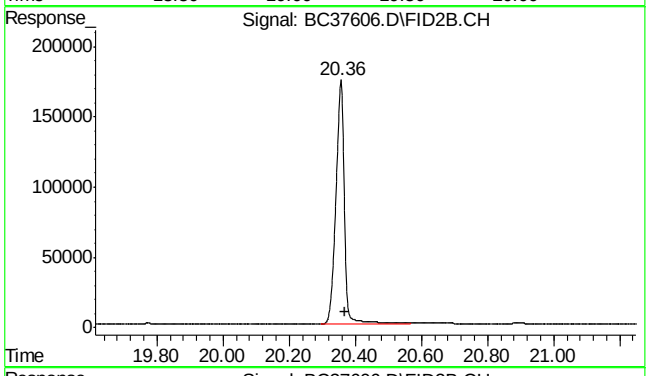
#37 c-24

R.T.: 17.949 min
Delta R.T.: -0.012 min
Response: 317965
Conc: 48.28 ppm



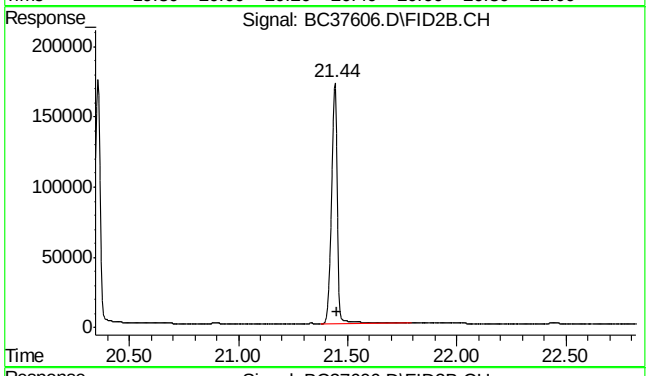
#38 c-26

R.T.: 19.195 min
Delta R.T.: -0.013 min
Response: 317087
Conc: 48.73 ppm



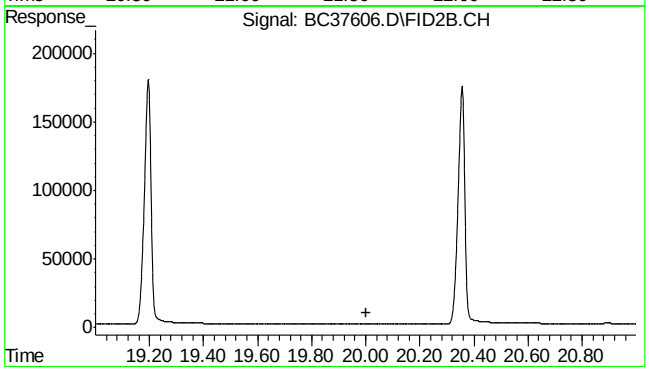
#39 c-28

R.T.: 20.357 min
Delta R.T.: -0.011 min
Response: 311880
Conc: 43.99 ppm



#40 c-30

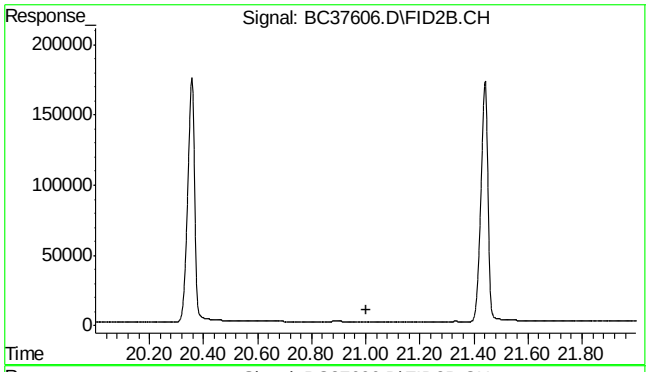
R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 314303
Conc: 44.26 ppm m



#42 BHT

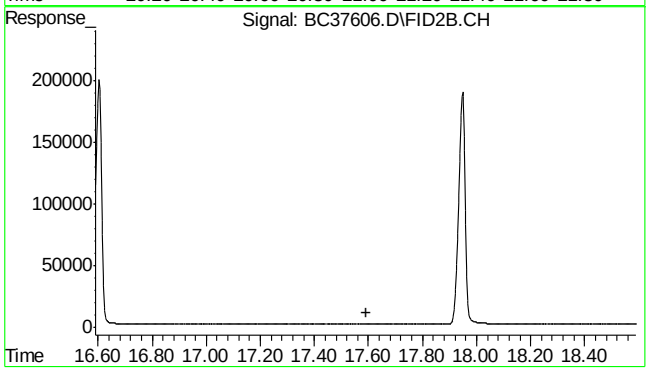
R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.

10.5.14 10



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.14

10

ACCUTEST Laboratories F71731

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 03/15/10 14:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37607.D\FID1A.CH Vial: 83
Signal #2 : C:\MSDCHEM\1\DATA\BC37607.D\FID2B.CH
Acq On : 3-11-10 02:15:16 PM Operator: KimD
Sample : ic1915-20 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 16:58:44 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 16:58:36 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	113951	19.317 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	96.58%
6) s 2-bromonaphthalene	10.45	76872	19.325 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	96.63%
11) s o-terphenyl	14.22	135080	19.952 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	99.76%
35) s 1-chlorooctadecane	15.79	91012	17.191 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	85.95%
Target Compounds			
2) naphthalene	7.28	127683	19.374 ppm
3) 2-methylnaphthalene	8.57	125228	19.448 ppm
5) acenaphthylene	10.21	128710	19.592 ppm
7) acenaphthene	10.57	134103	19.778 ppm
8) fluorene	11.52	124777	19.228 ppm
9) phenanthrene	13.27	129231	19.350 ppm
10) anthracene	13.36	128415	19.838 ppm
12) fluoranthene	15.52	131496	19.918 ppm
13) pyrene	15.91	134725	19.878 ppm
14) benzo(a)anthracene	18.23	111145	20.213 ppm
15) chrysene	18.30	131139	20.395 ppm
16) benzo(b)fluoranthene	20.15	122464	20.277 ppm
17) benzo(k)fluoranthene	20.20	130423	22.149 ppm
18) benzo(a)pyrene	20.66	128547	22.131 ppm
21) benzo(ghi)perylene	22.69	119454	10.817 ppm
25) h c-9	3.81	135363	20.632 ppm
26) h c-10	5.18	136483	20.584 ppm
27) naphthalene #2	7.50	140808	19.175 ppm
28) c-12	7.68	135327	19.636 ppm
29) 2-methylnaphthalene #2	8.76	123370	18.594 ppm
30) c-14	9.86	119124	18.650 ppm
31) c-16	11.80	116176	18.111 ppm
32) c-18	13.55	117863	18.119 ppm m
33) c-19	14.36	115749	17.878 ppm
34) c-20	15.14	115176	17.891 ppm
36) c-22	16.60	116700	17.944 ppm
37) c-24	17.94	117830	18.099 ppm m
38) c-26	19.19	117209	18.167 ppm
39) c-28	20.35	116606	17.867 ppm
40) h c-30	21.45	118838	17.704 ppm

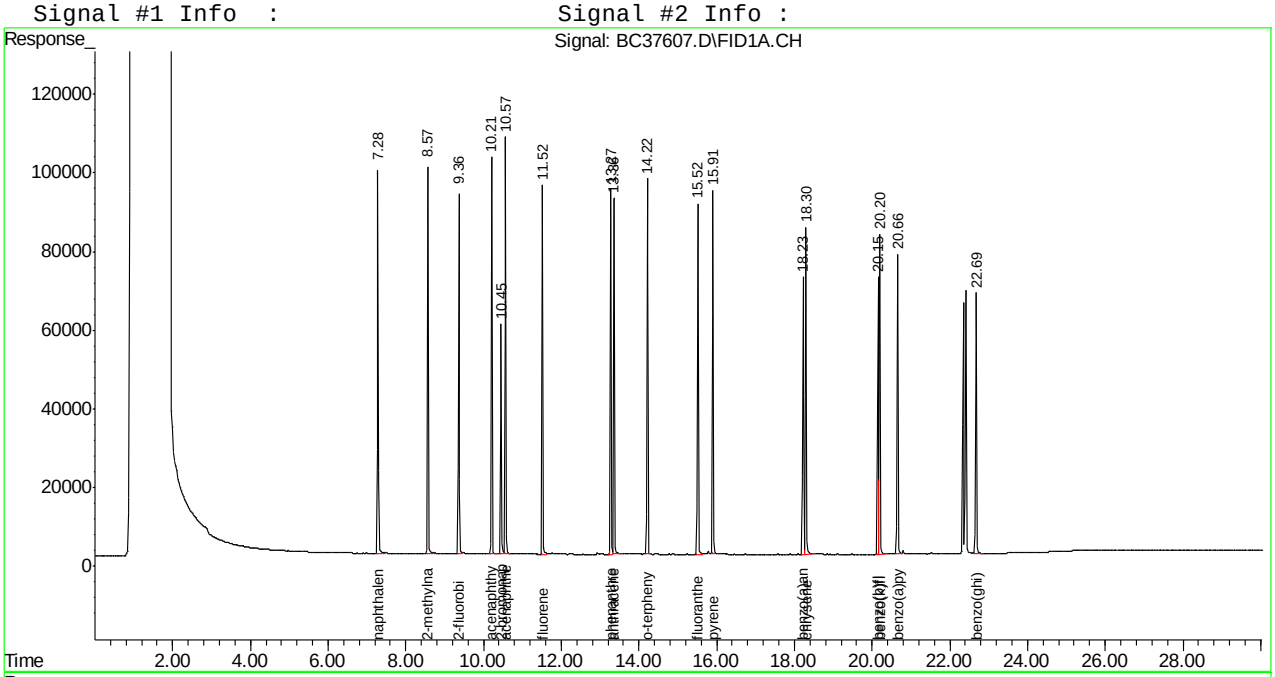
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37607.D EPH031110.M Fri Mar 12 13:47:26 2010 RPGEN1

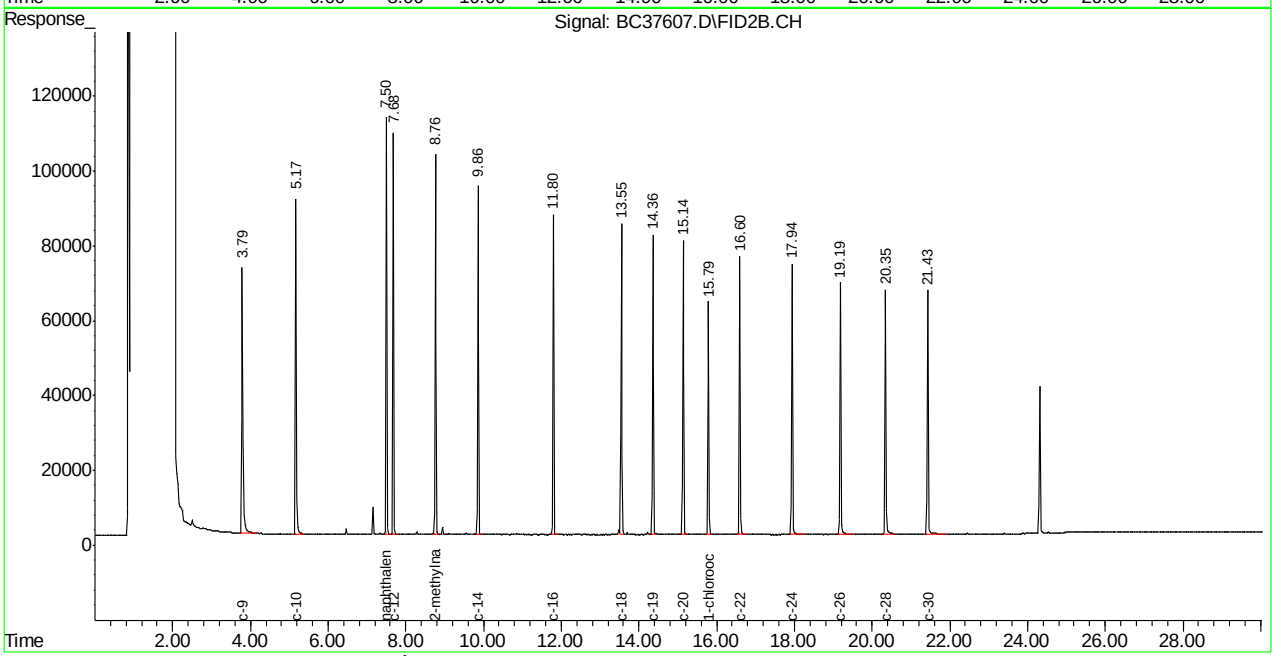
Quantitation Report (QT Reviewed)

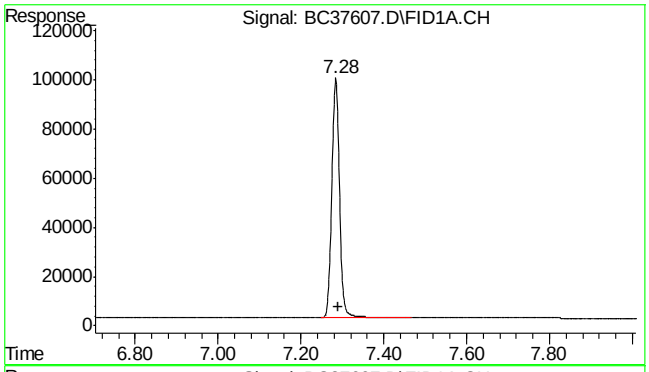
Signal #1 : C:\MSDCHEM\1\DATA\BC37607.D\FID1A.CH Vial: 83
Signal #2 : C:\MSDCHEM\1\DATA\BC37607.D\FID2B.CH
Acq On : 3-11-10 02:15:16 PM Operator: KimD
Sample : ic1915-20 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 17:00 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 16:58:36 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

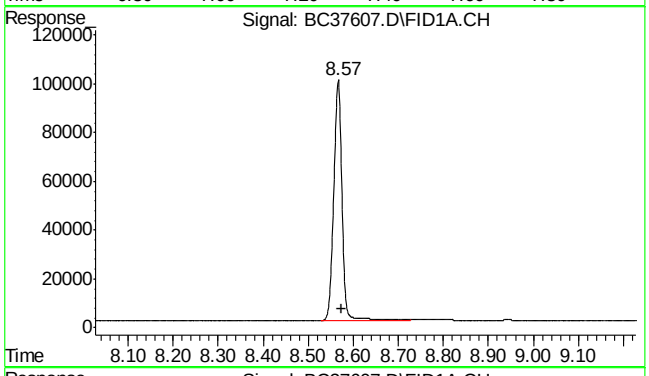






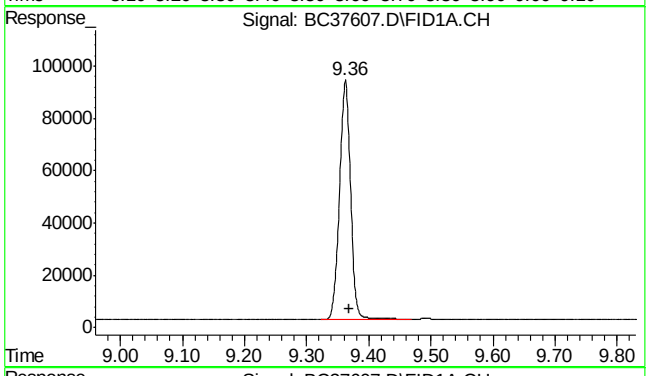
#2 naphthalene

R.T.: 7.284 min
Delta R.T.: -0.006 min
Response: 127683
Conc: 19.37 ppm



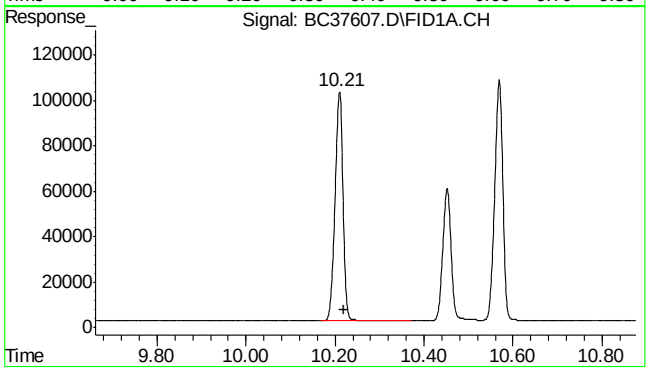
#3 2-methylnaphthalene

R.T.: 8.567 min
Delta R.T.: -0.007 min
Response: 125228
Conc: 19.45 ppm



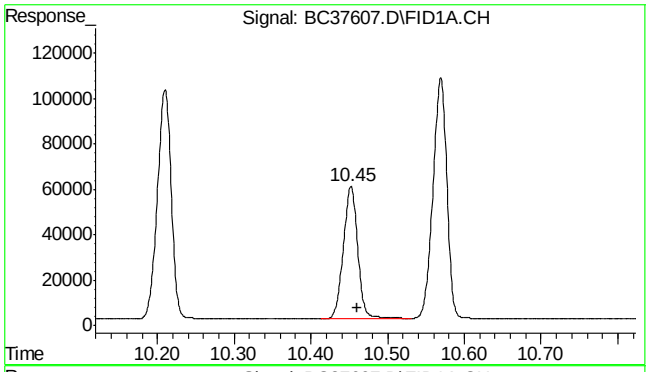
#4 2-fluorobiphenyl

R.T.: 9.363 min
Delta R.T.: -0.006 min
Response: 113951
Conc: 19.32 ppm



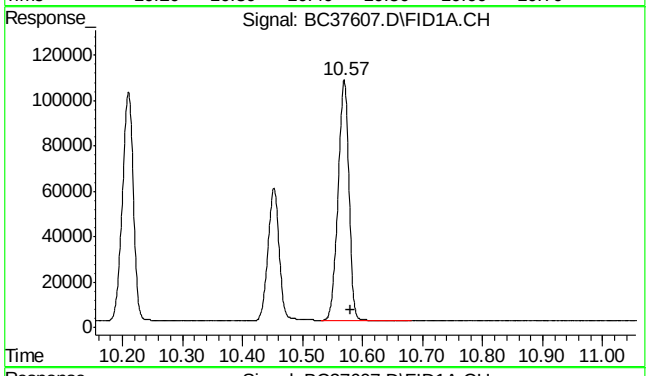
#5 acenaphthylene

R.T.: 10.210 min
Delta R.T.: -0.008 min
Response: 128710
Conc: 19.59 ppm



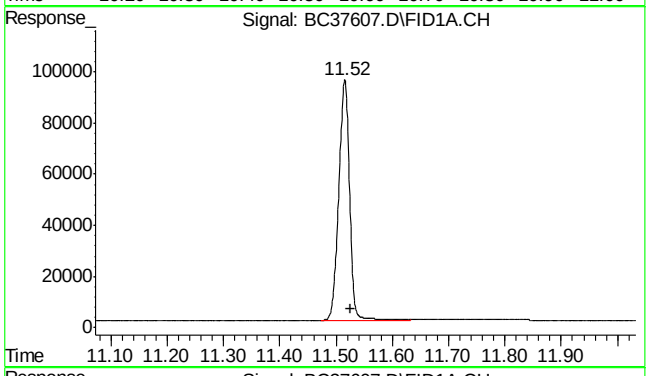
#6 2-bromonaphthalene

R.T.: 10.452 min
Delta R.T.: -0.008 min
Response: 76872
Conc: 19.32 ppm



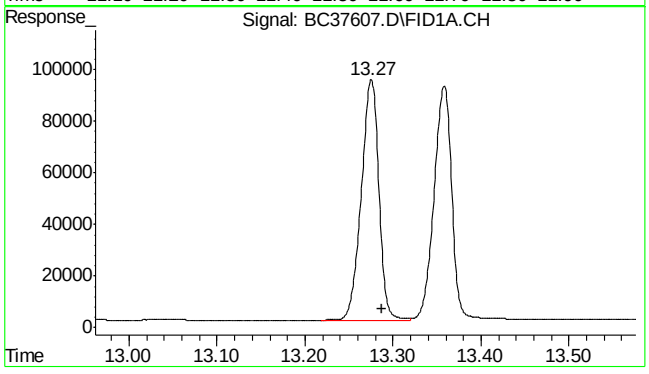
#7 acenaphthene

R.T.: 10.569 min
Delta R.T.: -0.011 min
Response: 134103
Conc: 19.78 ppm



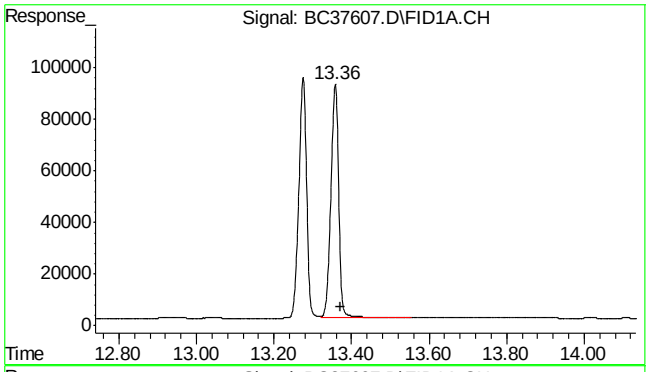
#8 fluorene

R.T.: 11.515 min
Delta R.T.: -0.010 min
Response: 124777
Conc: 19.23 ppm



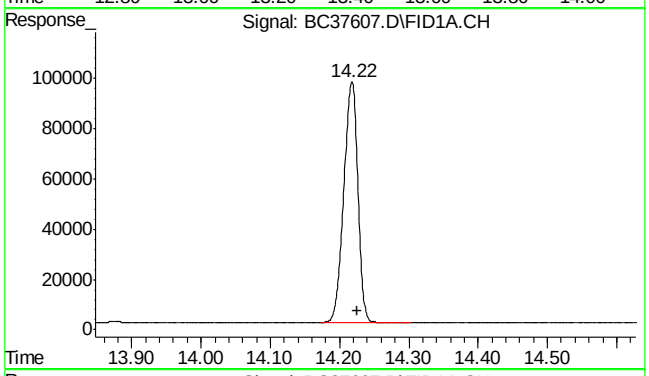
#9 phenanthrene

R.T.: 13.274 min
Delta R.T.: -0.013 min
Response: 129231
Conc: 19.35 ppm



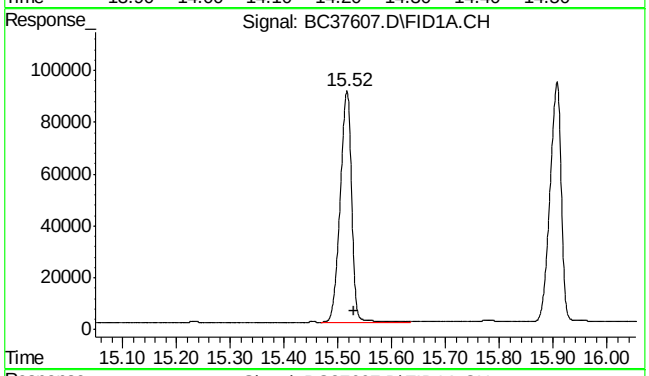
#10 anthracene

R.T.: 13.358 min
Delta R.T.: -0.014 min
Response: 128415
Conc: 19.84 ppm



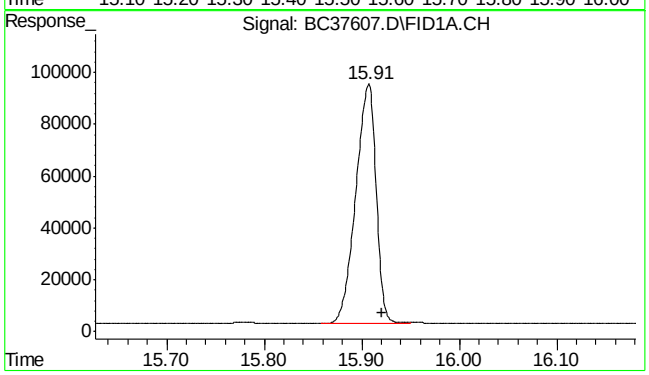
#11 o-terphenyl

R.T.: 14.218 min
Delta R.T.: -0.008 min
Response: 135080
Conc: 19.95 ppm



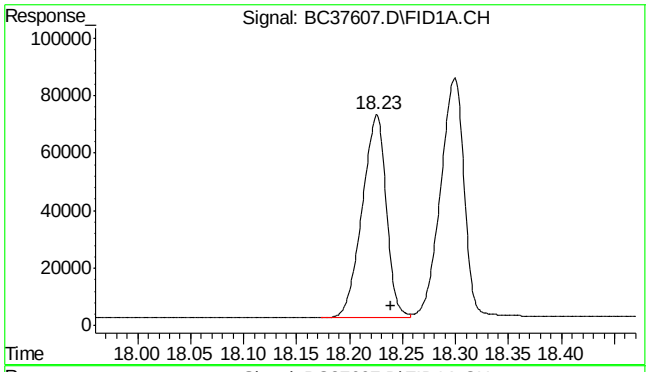
#12 fluoranthene

R.T.: 15.516 min
Delta R.T.: -0.014 min
Response: 131496
Conc: 19.92 ppm



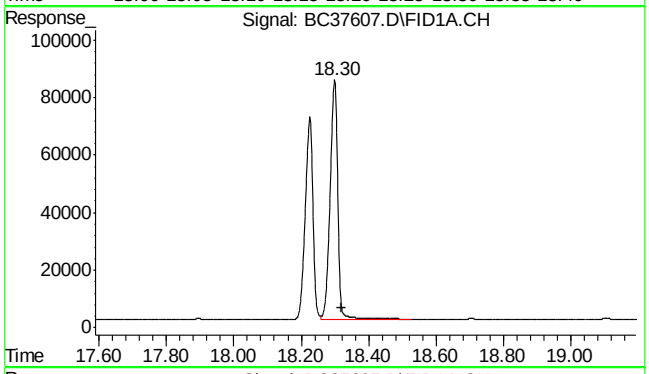
#13 pyrene

R.T.: 15.907 min
Delta R.T.: -0.014 min
Response: 134725
Conc: 19.88 ppm



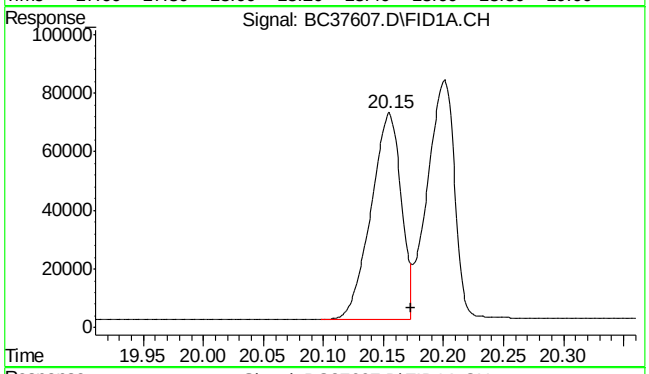
#14 benzo(a)anthracene

R.T.: 18.225 min
Delta R.T.: -0.014 min
Response: 111145
Conc: 20.21 ppm



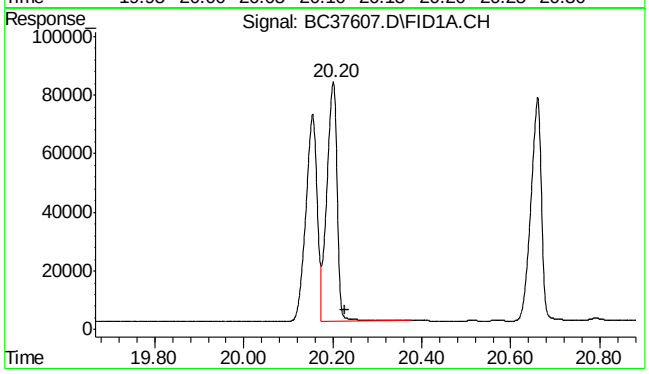
#15 chrysene

R.T.: 18.299 min
Delta R.T.: -0.020 min
Response: 131139
Conc: 20.39 ppm



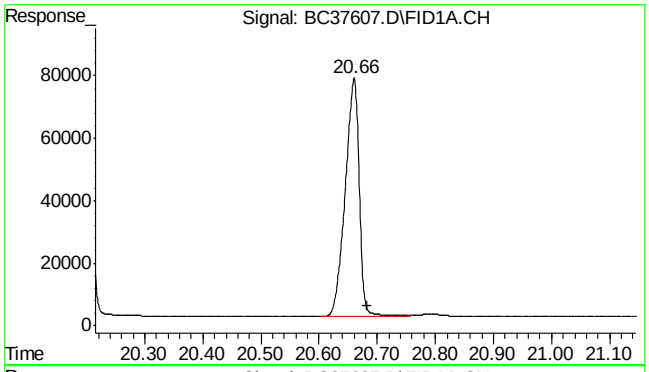
#16 benzo(b)fluoranthene

R.T.: 20.154 min
Delta R.T.: -0.018 min
Response: 122464
Conc: 20.28 ppm



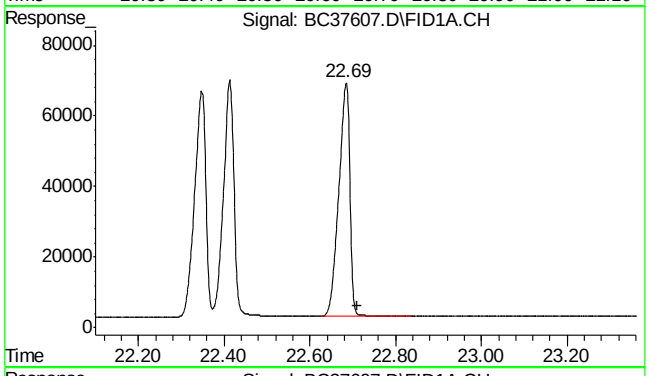
#17 benzo(k)fluoranthene

R.T.: 20.201 min
Delta R.T.: -0.025 min
Response: 130423
Conc: 22.15 ppm



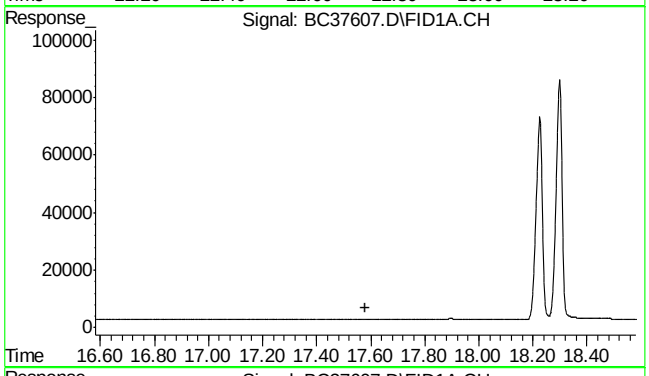
#18 benzo(a)pyrene

R.T.: 20.660 min
Delta R.T.: -0.023 min
Response: 128547
Conc: 22.13 ppm



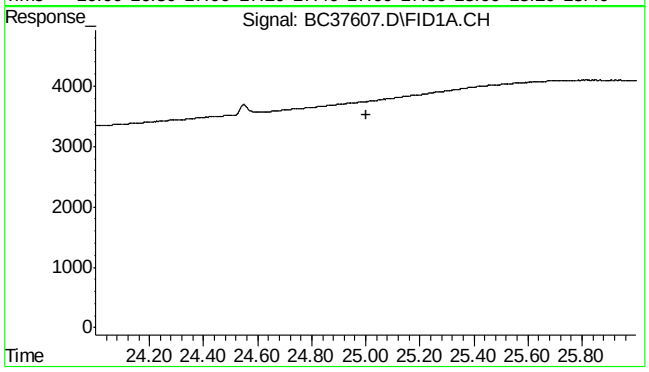
#21 benzo(ghi)perylene

R.T.: 22.685 min
Delta R.T.: -0.026 min
Response: 119454
Conc: 10.82 ppm



#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.

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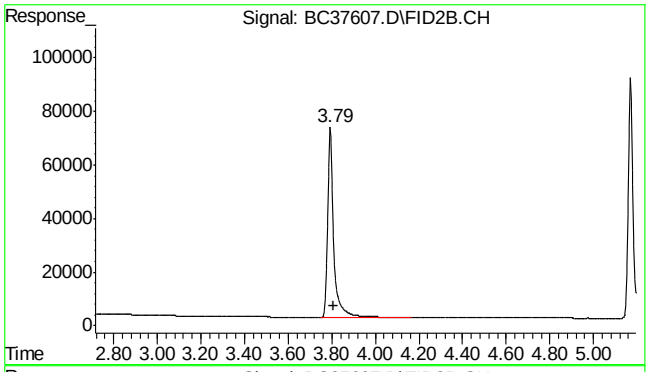
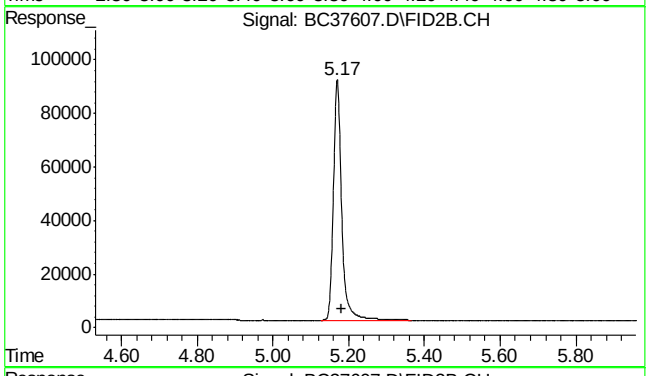


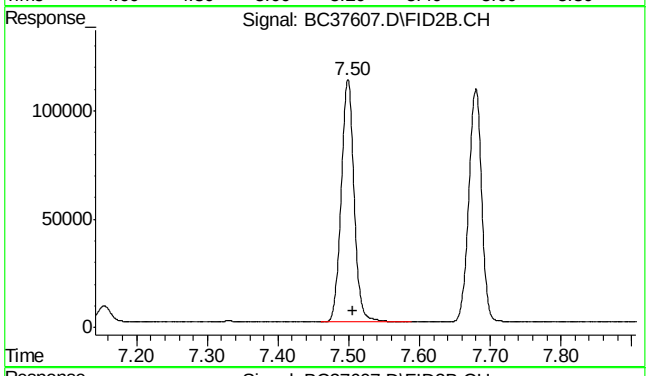
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 135363
Conc: 20.63 ppm m



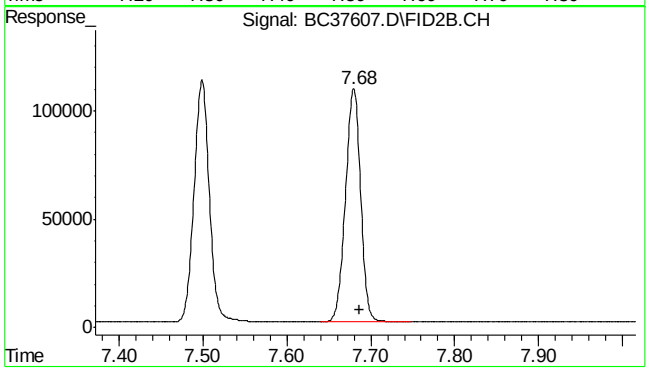
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 136483
Conc: 20.58 ppm m



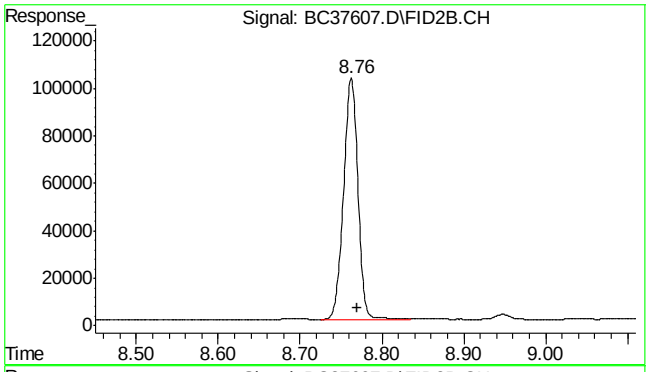
#27 naphthalene #2

R.T.: 7.498 min
Delta R.T.: -0.008 min
Response: 140808
Conc: 19.18 ppm



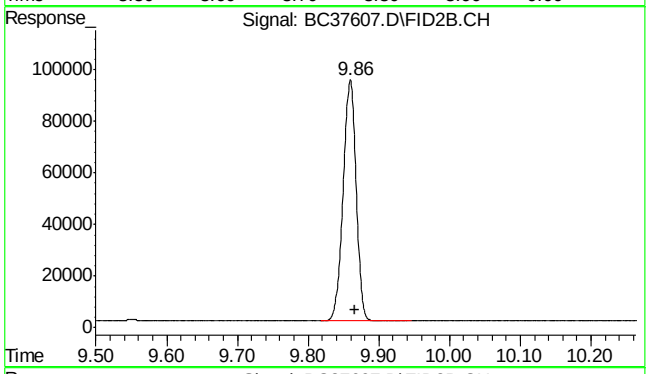
#28 c-12

R.T.: 7.679 min
Delta R.T.: -0.008 min
Response: 135327
Conc: 19.64 ppm



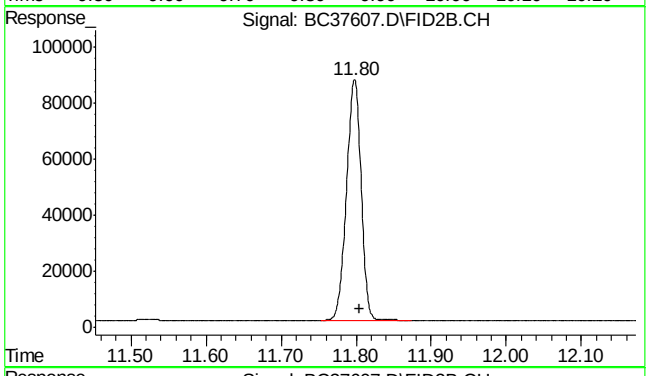
#29 2-methylnaphthalene #2

R.T.: 8.763 min
Delta R.T.: -0.008 min
Response: 123370
Conc: 18.59 ppm



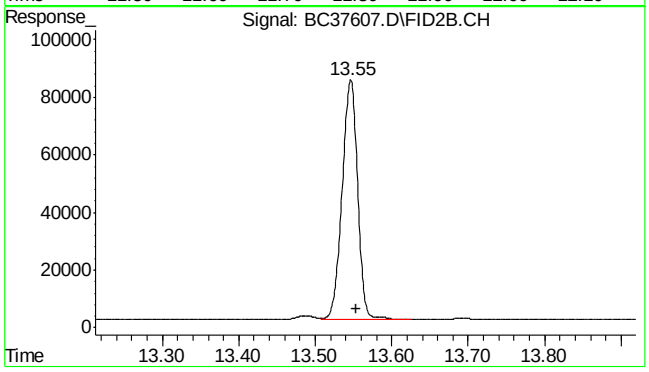
#30 c-14

R.T.: 9.859 min
Delta R.T.: -0.007 min
Response: 119124
Conc: 18.65 ppm



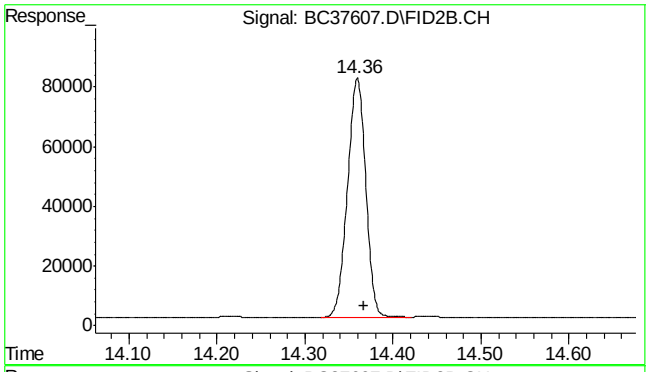
#31 c-16

R.T.: 11.798 min
Delta R.T.: -0.007 min
Response: 116176
Conc: 18.11 ppm



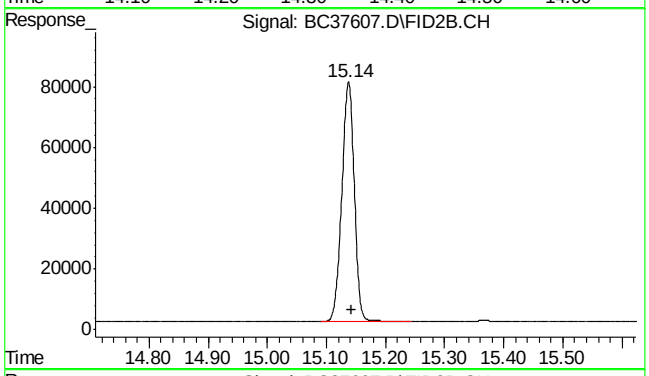
#32 c-18

R.T.: 13.546 min
Delta R.T.: -0.008 min
Response: 117863
Conc: 18.12 ppm m



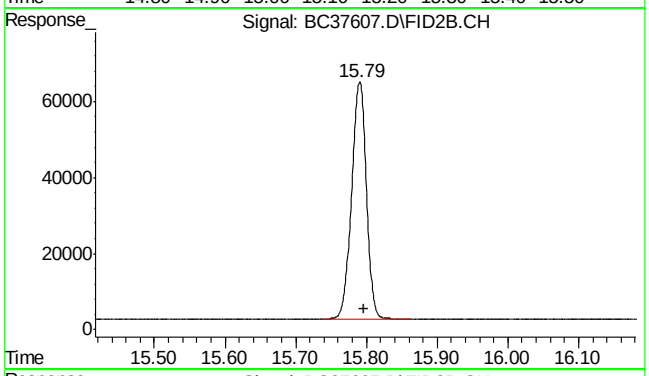
#33 c-19

R.T.: 14.359 min
Delta R.T.: -0.008 min
Response: 115749
Conc: 17.88 ppm



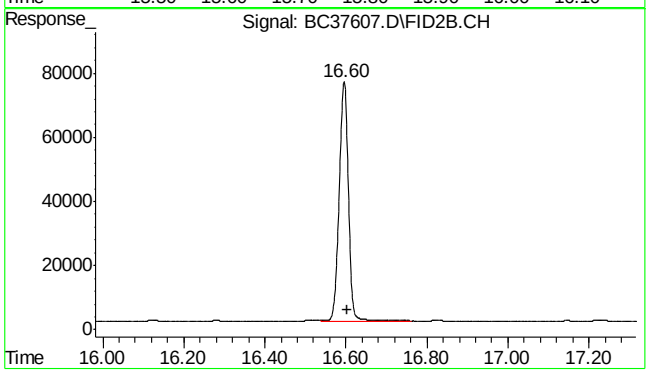
#34 c-20

R.T.: 15.138 min
Delta R.T.: -0.006 min
Response: 115176
Conc: 17.89 ppm



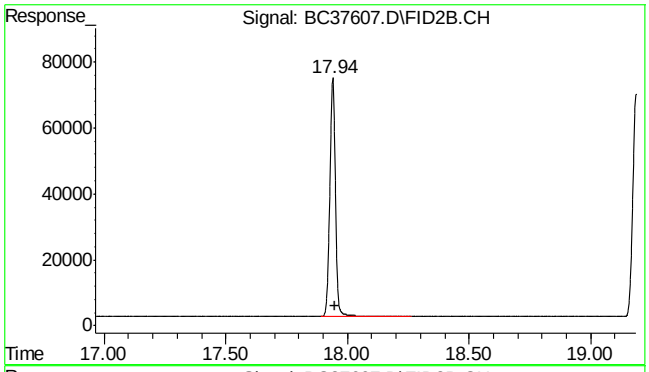
#35 1-chlorooctadecane

R.T.: 15.790 min
Delta R.T.: -0.006 min
Response: 91012
Conc: 17.19 ppm



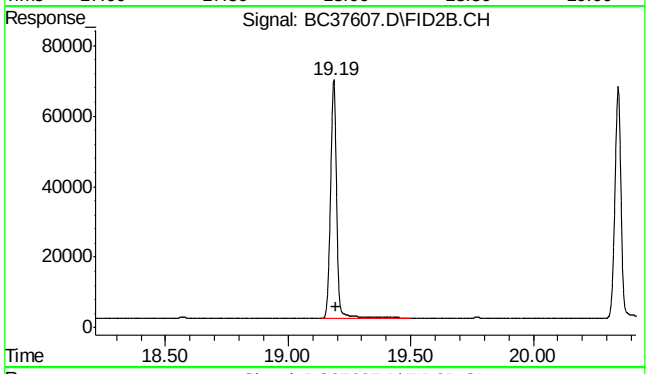
#36 c-22

R.T.: 16.596 min
Delta R.T.: -0.007 min
Response: 116700
Conc: 17.94 ppm



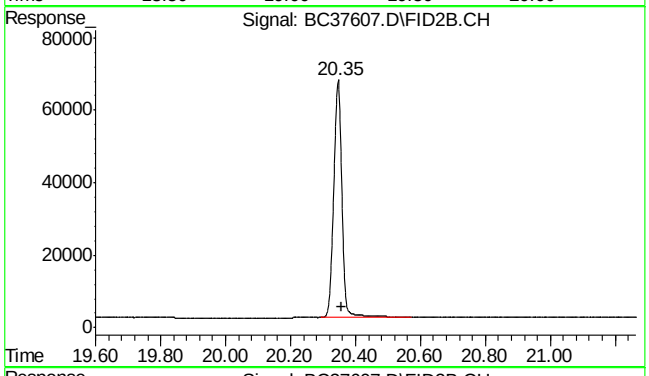
#37 c-24

R.T.: 17.940 min
Delta R.T.: -0.008 min
Response: 117830
Conc: 18.10 ppm m



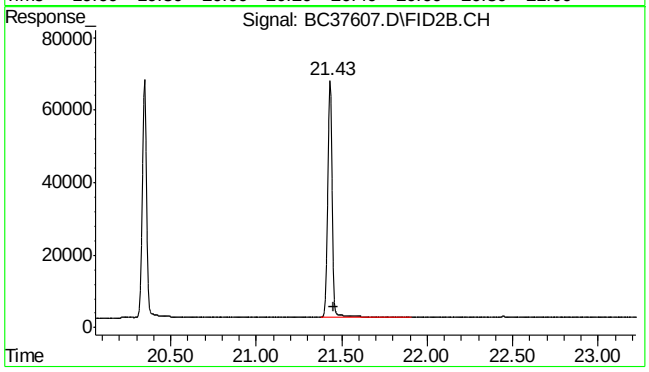
#38 c-26

R.T.: 19.186 min
Delta R.T.: -0.009 min
Response: 117209
Conc: 18.17 ppm



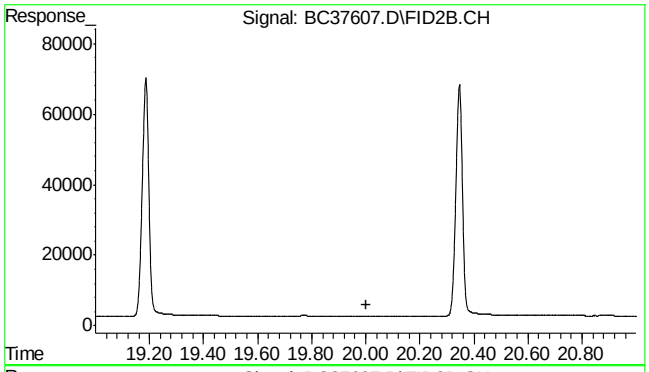
#39 c-28

R.T.: 20.347 min
Delta R.T.: -0.010 min
Response: 116606
Conc: 17.87 ppm



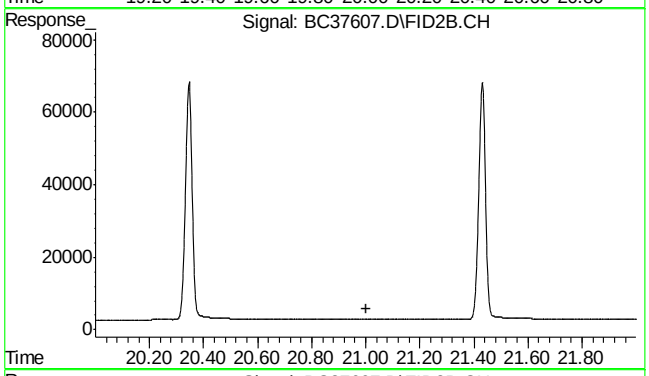
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 118838
Conc: 17.70 ppm m



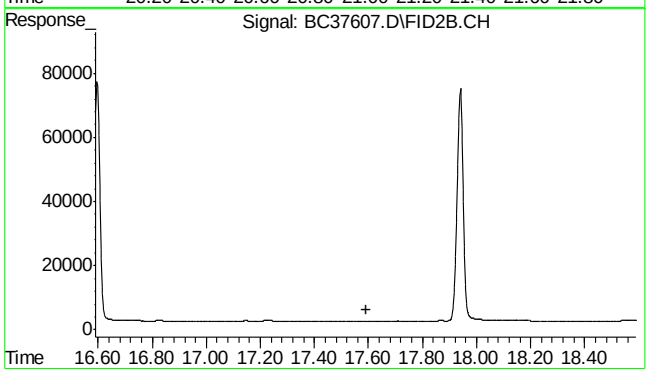
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 03/15/10 14:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37608.D\FID1A.CH Vial: 85
Signal #2 : C:\MSDCHEM\1\DATA\BC37608.D\FID2B.CH
Acq On : 3-11-10 02:54:49 PM Operator: KimD
Sample : ic1915-5 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 17:00:41 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 17:00:32 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.36	34627	5.921 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	29.61%#
6) s 2-bromonaphthalene	10.45	22789	5.778 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	28.89%#
11) s o-terphenyl	14.21	42500	6.281 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	31.41%#
35) s 1-chlorooctadecane	15.79	20799	4.072 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery =	20.36%#
Target Compounds			
2) naphthalene	7.28	39351	6.018 ppm
3) 2-methylnaphthalene	8.56	38185	5.971 ppm
5) acenaphthylene	10.21	40160	6.144 ppm
7) acenaphthene	10.56	42531	6.290 ppm
8) fluorene	11.51	37828	5.886 ppm
9) phenanthrene	13.27	38992	5.886 ppm
10) anthracene	13.35f	39411	6.101 ppm
12) fluoranthene	15.51	40442	6.132 ppm
13) pyrene	15.90f	41776	6.173 ppm
14) benzo(a)anthracene	18.22	32711	6.551 ppm
15) chrysene	18.29f	40327	6.241 ppm
16) benzo(b)fluoranthene	20.14f	36587	6.037 ppm m
17) benzo(k)fluoranthene	20.19f	40801	6.748 ppm
18) benzo(a)pyrene	20.65f	38799	6.506 ppm
21) benzo(ghi)perylene	22.67f	36511	3.195 ppm
25) h c-9	3.81	31662	4.788 ppm
26) h c-10	5.18	32900	4.926 ppm
27) naphthalene #2	7.50	33214	4.570 ppm
28) c-12	7.68	32053	4.672 ppm
29) 2-methylnaphthalene #2	8.76	29253	4.488 ppm
30) c-14	9.86	28355	4.515 ppm
31) c-16	11.79	27922	4.458 ppm
32) c-18	13.54	28360	4.465 ppm m
33) c-19	14.36	27837	4.417 ppm
34) c-20	15.13	27667	4.414 ppm
36) c-22	16.59	27876	4.399 ppm
37) c-24	17.94	27894	4.389 ppm
38) c-26	19.18	27343	4.337 ppm
39) c-28	20.34	25981	4.983 ppm
40) h c-30	21.45	23229	4.047 ppm

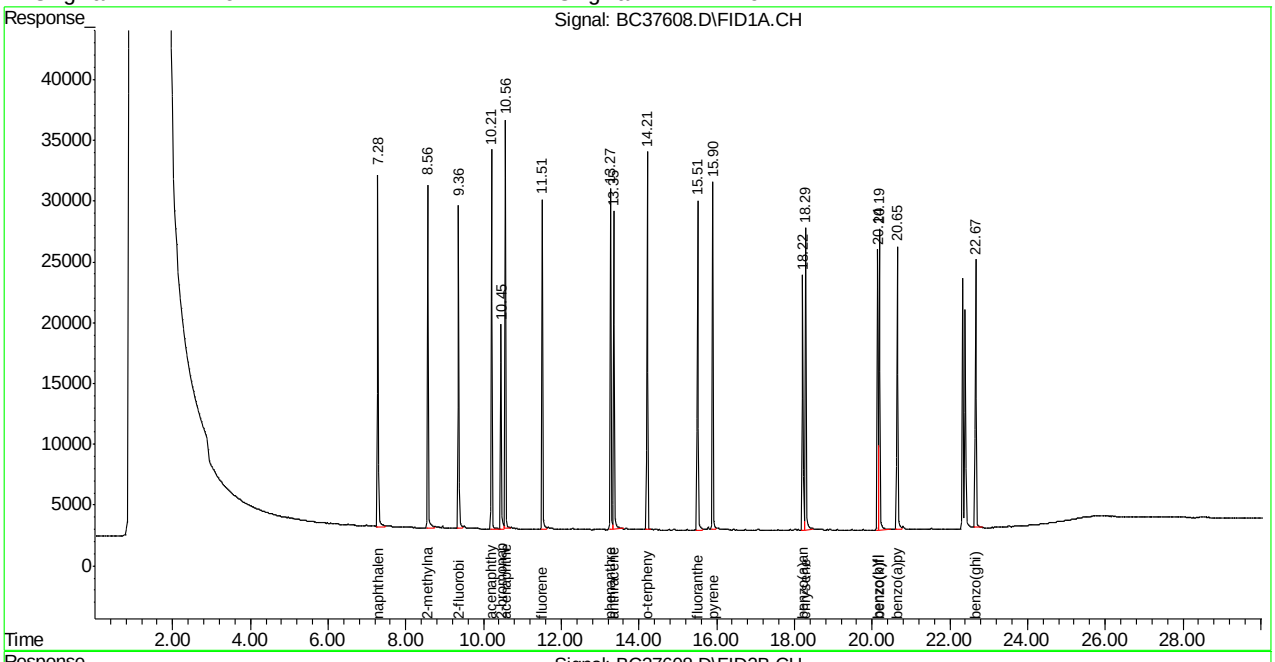
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37608.D EPH031110.M Fri Mar 12 13:47:48 2010 RPGEN1

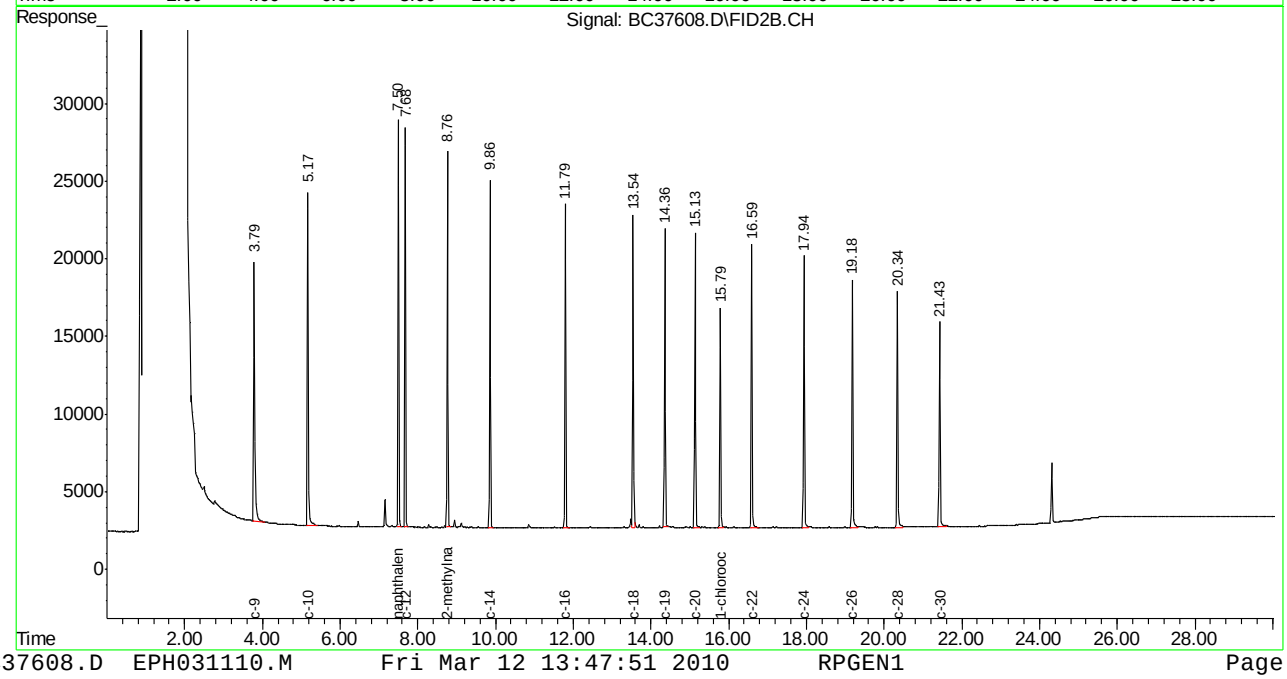
Quantitation Report (QT Reviewed)

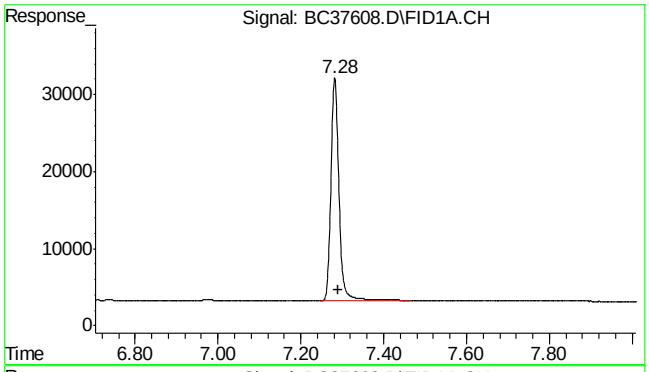
Signal #1 : C:\MSDCHEM\1\DATA\BC37608.D\FID1A.CH Vial: 85
Signal #2 : C:\MSDCHEM\1\DATA\BC37608.D\FID2B.CH
Acq On : 3-11-10 02:54:49 PM Operator: KimD
Sample : ic1915-5 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 17:02 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 17:00:32 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

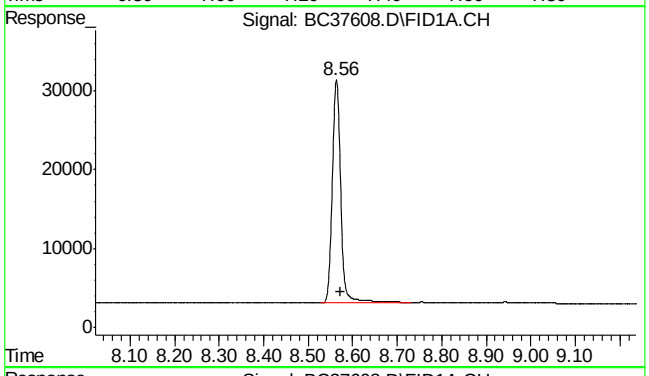






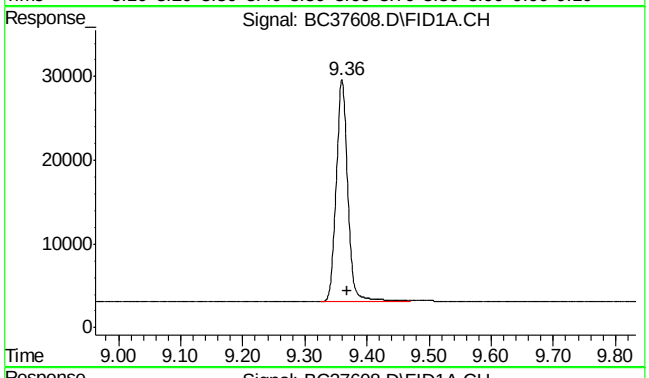
#2 naphthalene

R.T.: 7.282 min
Delta R.T.: -0.008 min
Response: 39351
Conc: 6.02 ppm



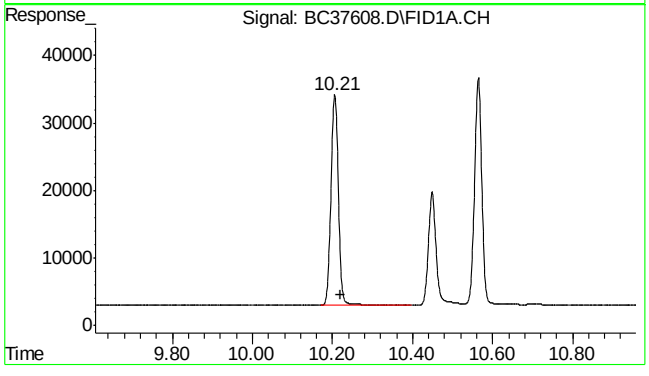
#3 2-methylnaphthalene

R.T.: 8.563 min
Delta R.T.: -0.011 min
Response: 38185
Conc: 5.97 ppm



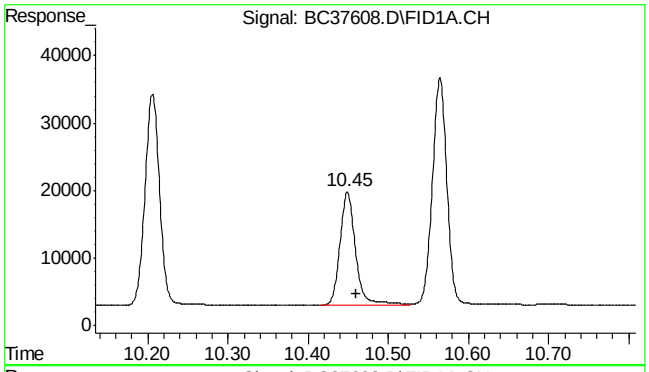
#4 2-fluorobiphenyl

R.T.: 9.360 min
Delta R.T.: -0.009 min
Response: 34627
Conc: 5.92 ppm



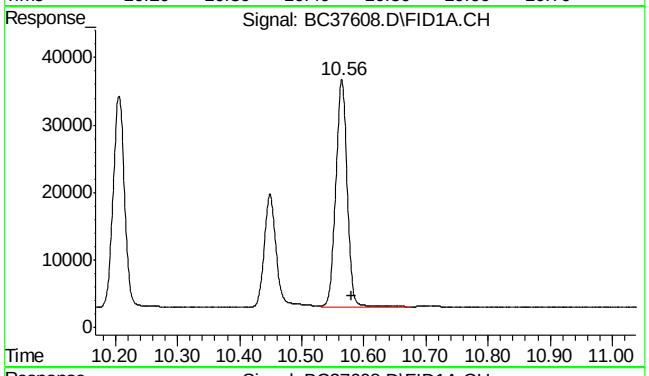
#5 acenaphthylene

R.T.: 10.205 min
Delta R.T.: -0.013 min
Response: 40160
Conc: 6.14 ppm



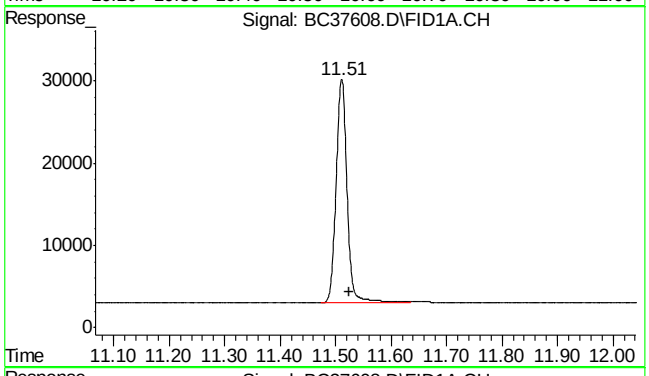
#6 2-bromonaphthalene

R.T.: 10.449 min
Delta R.T.: -0.011 min
Response: 22789
Conc: 5.78 ppm



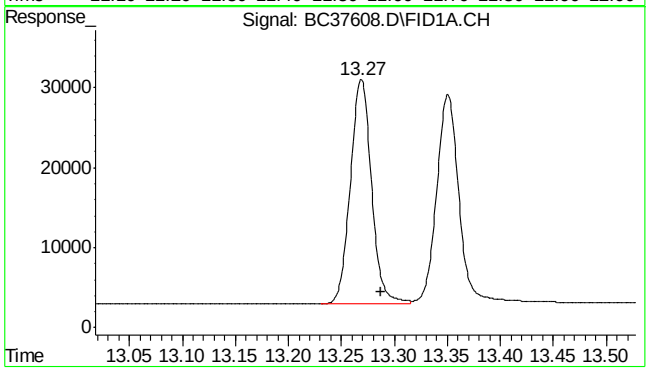
#7 acenaphthene

R.T.: 10.565 min
Delta R.T.: -0.016 min
Response: 42531
Conc: 6.29 ppm



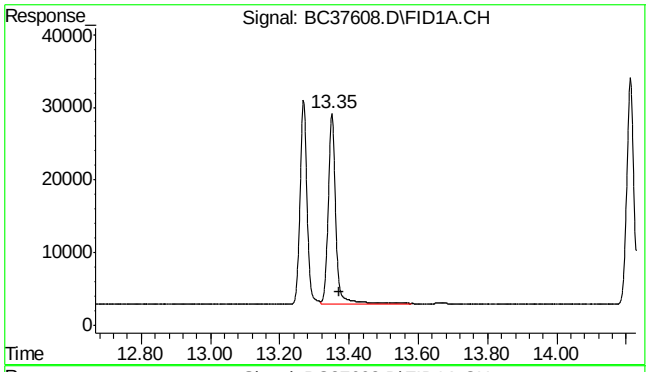
#8 fluorene

R.T.: 11.511 min
Delta R.T.: -0.014 min
Response: 37828
Conc: 5.89 ppm



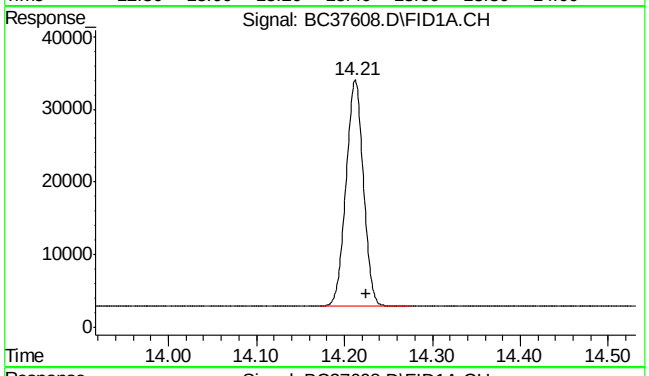
#9 phenanthrene

R.T.: 13.268 min
Delta R.T.: -0.019 min
Response: 38992
Conc: 5.89 ppm



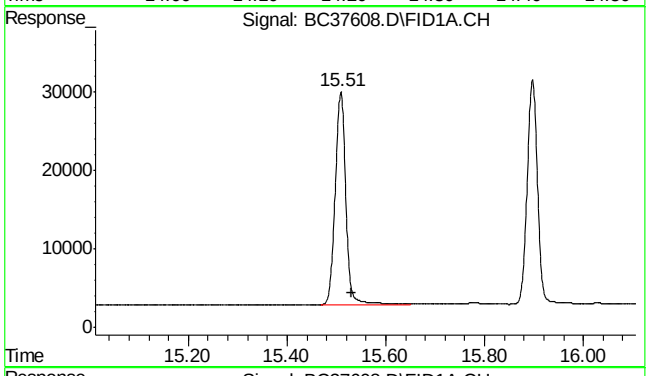
#10 anthracene

R.T.: 13.350 min
Delta R.T.: -0.021 min
Response: 39411
Conc: 6.10 ppm



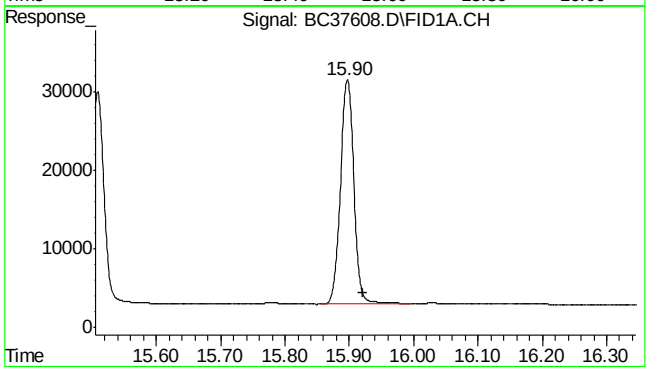
#11 o-terphenyl

R.T.: 14.212 min
Delta R.T.: -0.013 min
Response: 42500
Conc: 6.28 ppm



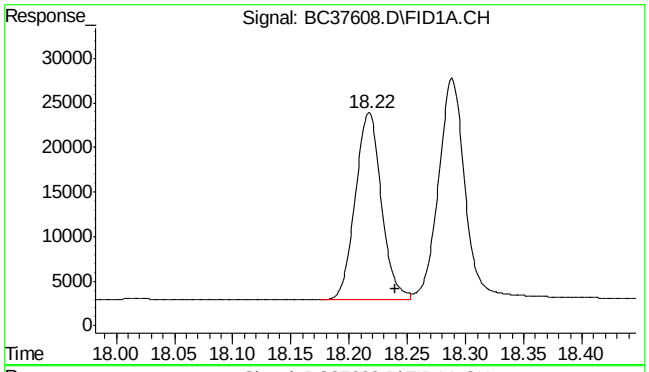
#12 fluoranthene

R.T.: 15.509 min
Delta R.T.: -0.021 min
Response: 40442
Conc: 6.13 ppm



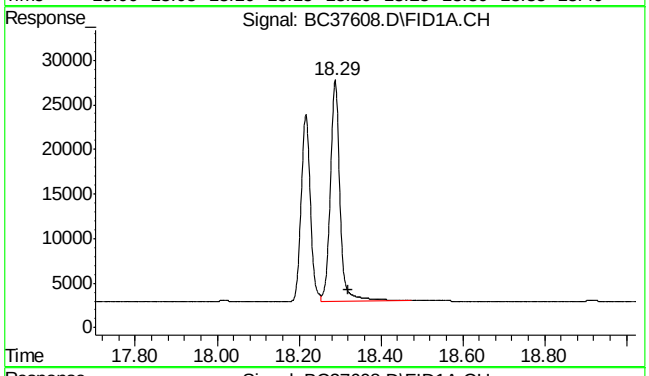
#13 pyrene

R.T.: 15.897 min
Delta R.T.: -0.024 min
Response: 41776
Conc: 6.17 ppm



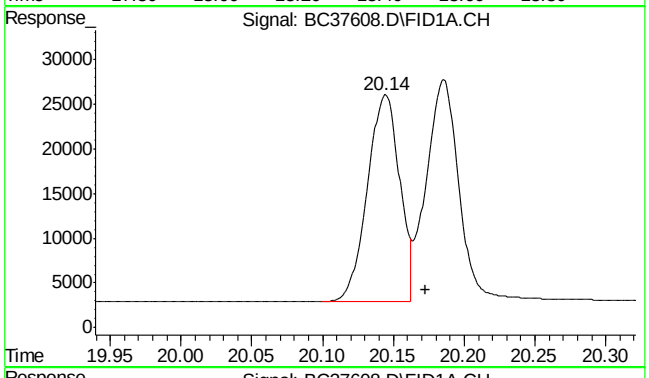
#14 benzo(a)anthracene

R.T.: 18.217 min
Delta R.T.: -0.022 min
Response: 32711
Conc: 6.55 ppm



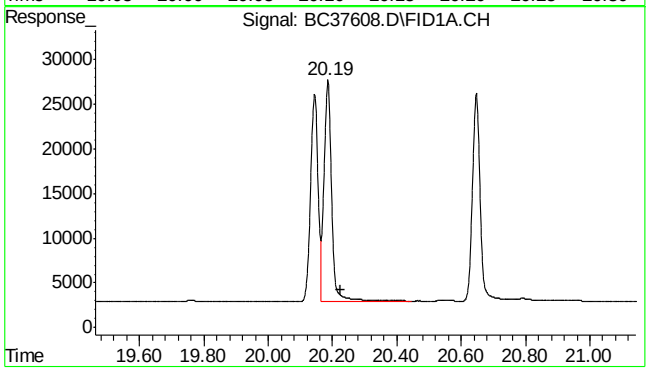
#15 chrysene

R.T.: 18.288 min
Delta R.T.: -0.031 min
Response: 40327
Conc: 6.24 ppm



#16 benzo(b)fluoranthene

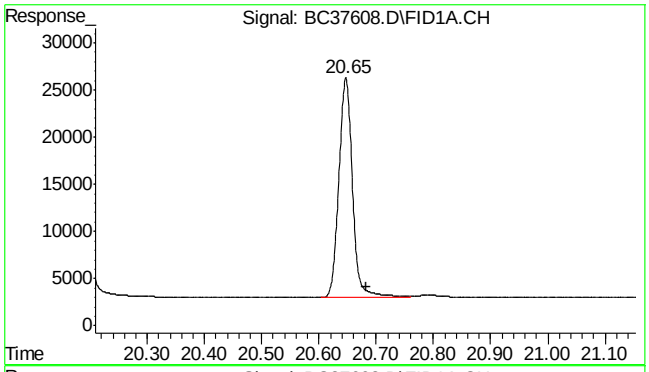
R.T.: 20.144 min
Delta R.T.: -0.029 min
Response: 36587
Conc: 6.04 ppm m



#17 benzo(k)fluoranthene

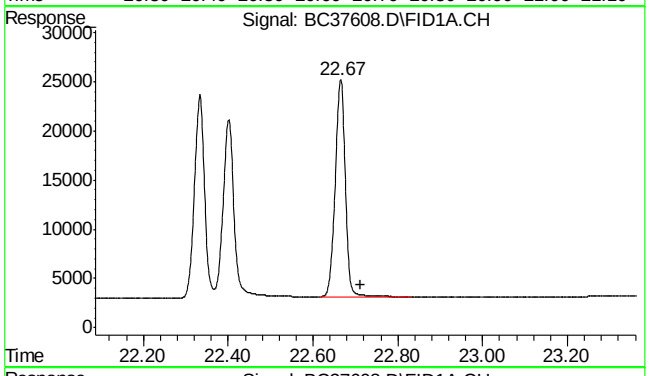
R.T.: 20.185 min
Delta R.T.: -0.041 min
Response: 40801
Conc: 6.75 ppm

10.5.16 10



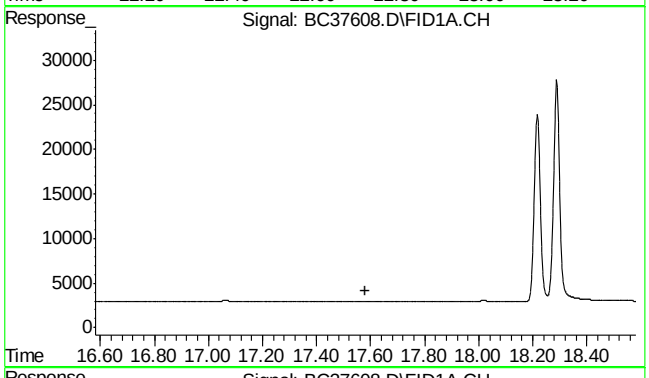
#18 benzo(a)pyrene

R.T.: 20.647 min
Delta R.T.: -0.036 min
Response: 38799
Conc: 6.51 ppm



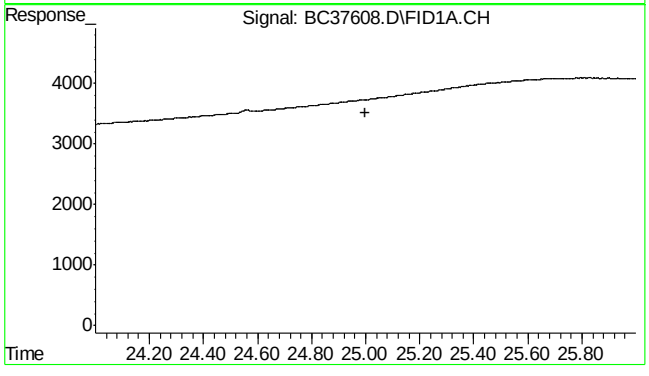
#21 benzo(ghi)perylene

R.T.: 22.665 min
Delta R.T.: -0.046 min
Response: 36511
Conc: 3.20 ppm



#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.

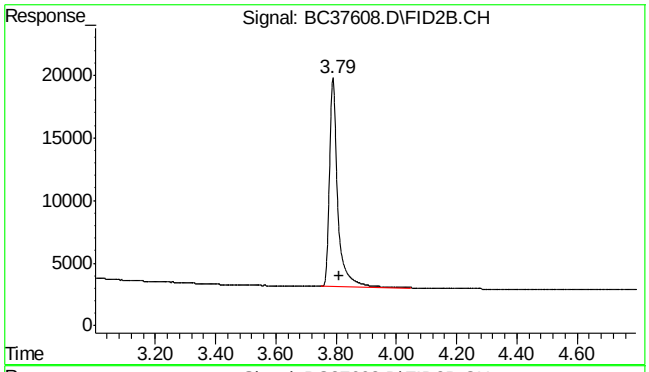


#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.

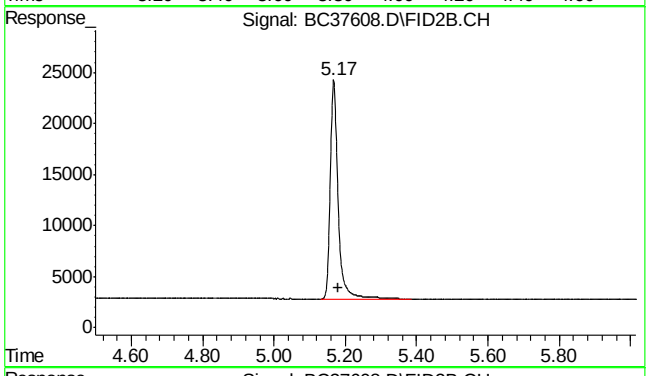
10.5.16 10

ACCUTEST Laboratories F71731



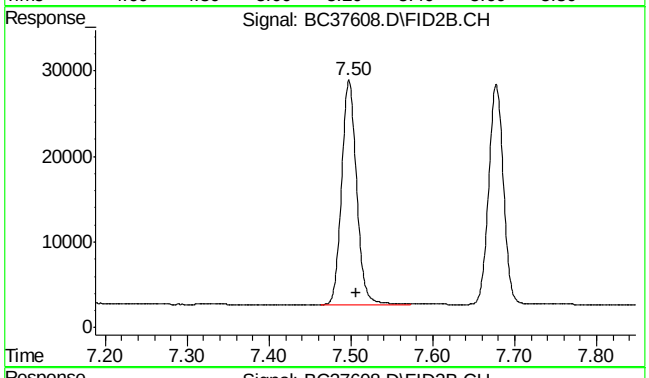
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 31662
Conc: 4.79 ppm m



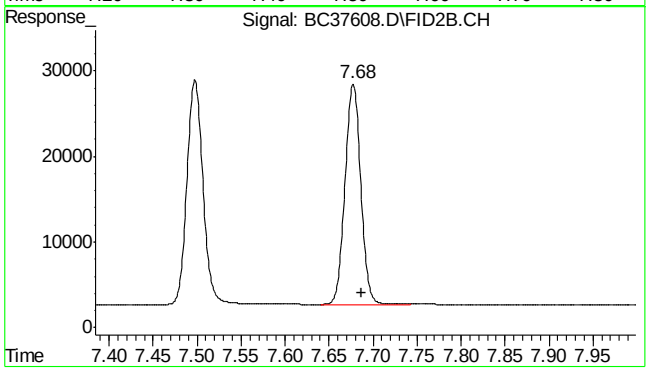
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 32900
Conc: 4.93 ppm m



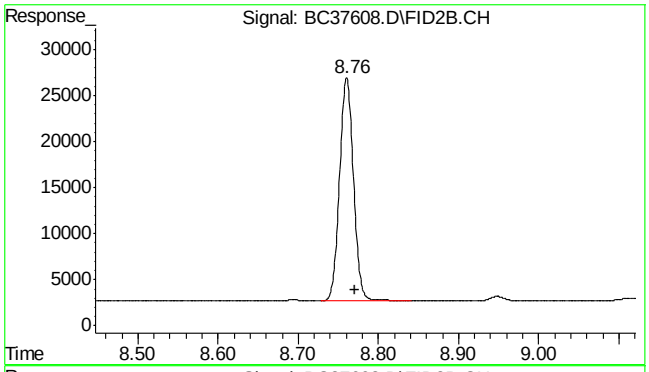
#27 naphthalene #2

R.T.: 7.497 min
Delta R.T.: -0.009 min
Response: 33214
Conc: 4.57 ppm



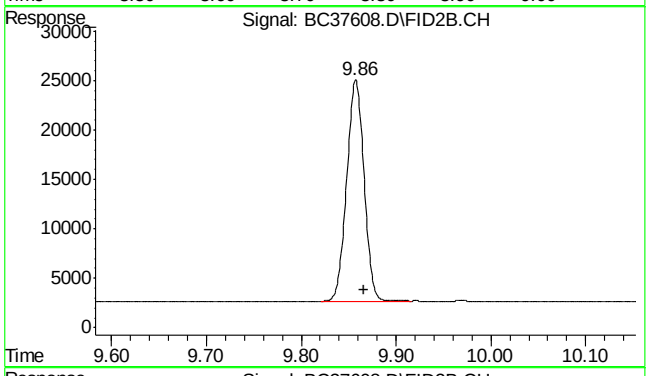
#28 c-12

R.T.: 7.677 min
Delta R.T.: -0.010 min
Response: 32053
Conc: 4.67 ppm



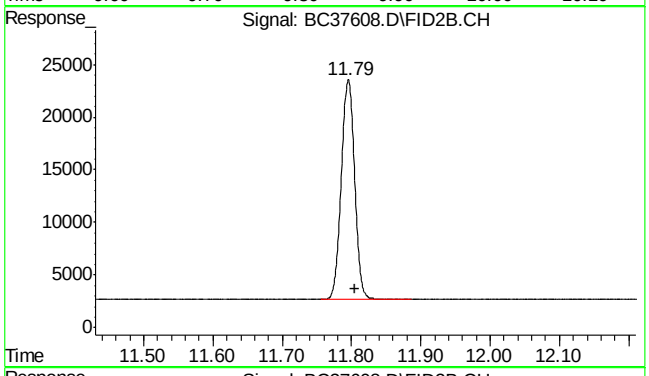
#29 2-methylnaphthalene #2

R.T.: 8.760 min
Delta R.T.: -0.010 min
Response: 29253
Conc: 4.49 ppm



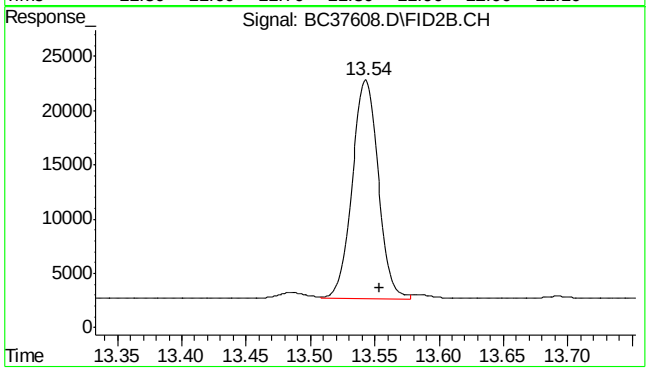
#30 c-14

R.T.: 9.857 min
Delta R.T.: -0.009 min
Response: 28355
Conc: 4.52 ppm



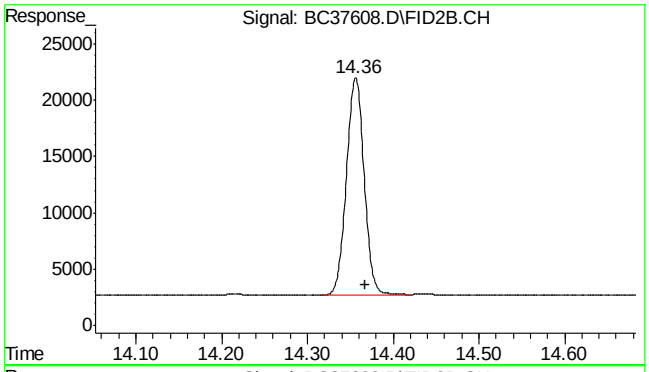
#31 c-16

R.T.: 11.795 min
Delta R.T.: -0.010 min
Response: 27922
Conc: 4.46 ppm



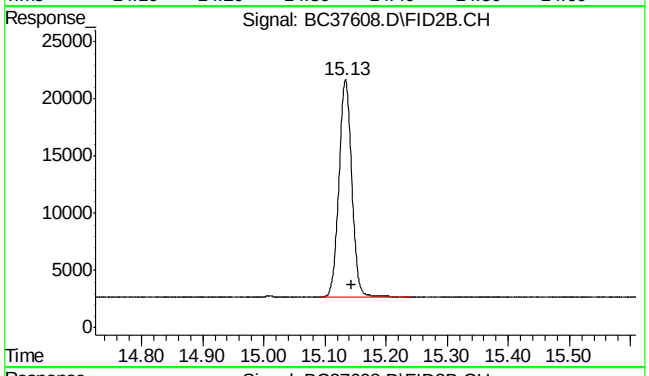
#32 c-18

R.T.: 13.543 min
Delta R.T.: -0.011 min
Response: 28360
Conc: 4.46 ppm m



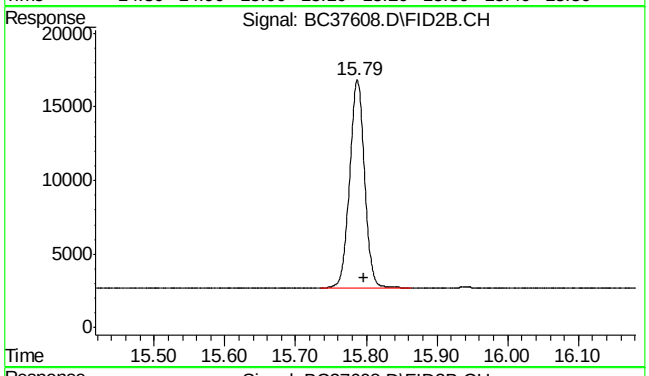
#33 c-19

R.T.: 14.356 min
Delta R.T.: -0.011 min
Response: 27837
Conc: 4.42 ppm



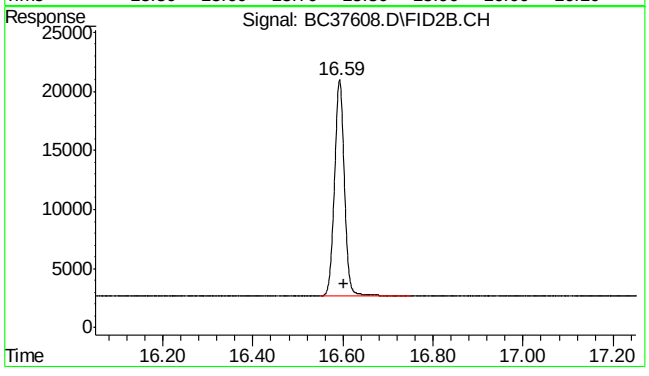
#34 c-20

R.T.: 15.133 min
Delta R.T.: -0.011 min
Response: 27667
Conc: 4.41 ppm



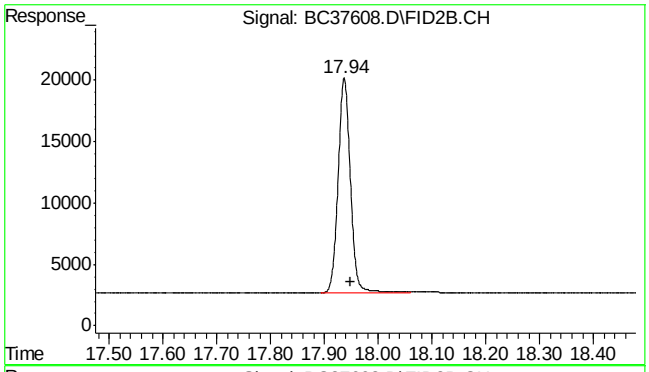
#35 1-chlorooctadecane

R.T.: 15.787 min
Delta R.T.: -0.009 min
Response: 20799
Conc: 4.07 ppm



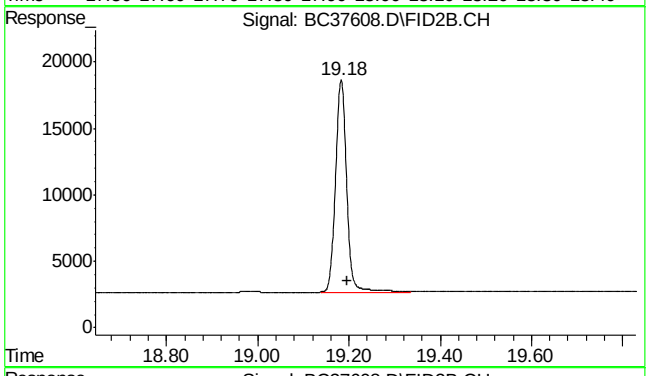
#36 c-22

R.T.: 16.593 min
Delta R.T.: -0.010 min
Response: 27876
Conc: 4.40 ppm



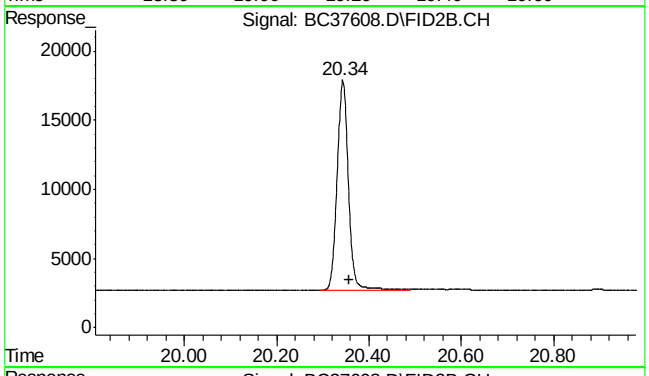
#37 c-24

R.T.: 17.936 min
Delta R.T.: -0.012 min
Response: 27894
Conc: 4.39 ppm



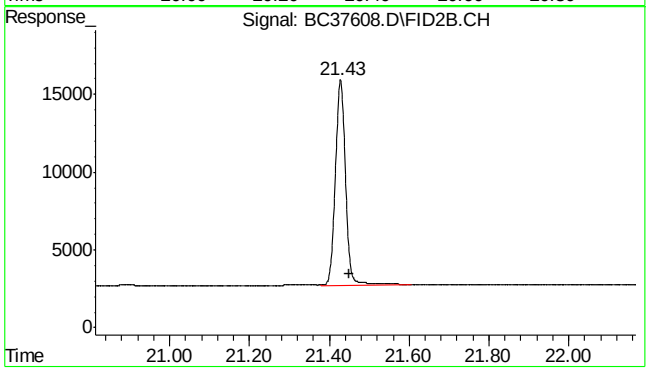
#38 c-26

R.T.: 19.183 min
Delta R.T.: -0.012 min
Response: 27343
Conc: 4.34 ppm



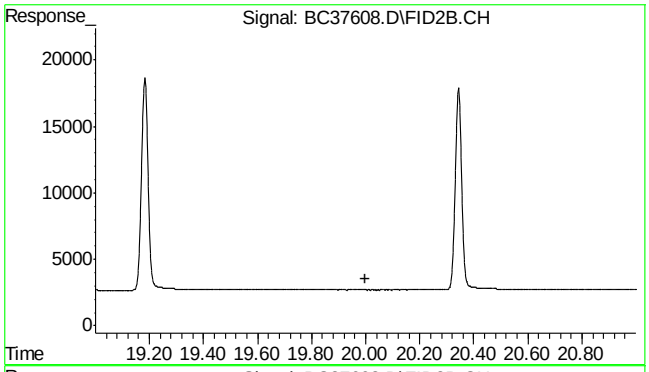
#39 c-28

R.T.: 20.343 min
Delta R.T.: -0.014 min
Response: 25981
Conc: 4.98 ppm



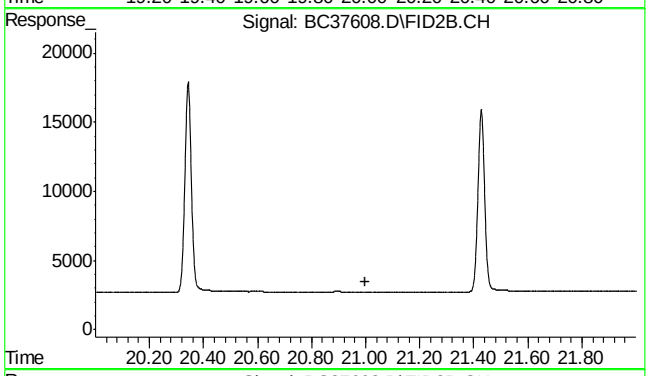
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 23229
Conc: 4.05 ppm m



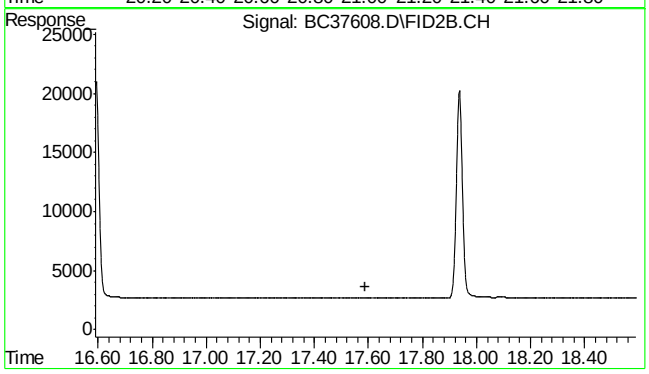
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 03/15/10 14:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37609.D\FID1A.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BC37609.D\FID2B.CH
Acq On : 3-11-10 03:34:09 PM Operator: KimD
Sample : ic1915-2 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 17:02:43 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 17:02:33 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
4) s	2-fluorobiphenyl	9.36	11444	1.887	ppm	m
Spiked Amount	20.000	Range	40 - 140	Recovery	= 9.44%#	
6) s	2-bromonaphthalene	10.45	6812	1.675	ppm	
Spiked Amount	20.000	Range	40 - 140	Recovery	= 8.38%#	
11) s	o-terphenyl	14.21	14694	2.066	ppm	m
Spiked Amount	20.000	Range	40 - 140	Recovery	= 10.33%#	
35) s	1-chlorooctadecane	15.79	7616	1.548	ppm	m
Spiked Amount	20.000	Range	40 - 140	Recovery	= 7.74%#	
	Target Compounds					
2)	naphthalene	7.28	12752	1.874	ppm	
3)	2-methylnaphthalene	8.56	12415	1.869	ppm	m
5)	acenaphthylene	10.21	13507	1.976	ppm	m
7)	acenaphthene	10.56	14932	2.100	ppm	m
8)	fluorene	11.51	12521	1.882	ppm	m
9)	phenanthrene	13.27	12418	1.810	ppm	
10)	anthracene	13.35f	12992	1.926	ppm	m
12)	fluoranthene	15.51	13420	1.947	ppm	m
13)	pyrene	15.90f	14126	1.994	ppm	m
14)	benzo(a)anthracene	18.22	9459	1.904	ppm	
15)	chrysene	18.29f	13723	2.023	ppm	m
16)	benzo(b)fluoranthene	20.14f	11132	1.764	ppm	m
17)	benzo(k)fluoranthene	20.18f	13642	2.109	ppm	m
18)	benzo(a)pyrene	20.64f	12445	1.968	ppm	m
21)	benzo(ghi)perylene	22.66f	10964	326.597	ppm	m
25) h	c-9	3.81	12384	1.889	ppm	
26) h	c-10	5.18	13254	1.990	ppm	
27)	naphthalene #2	7.50	13221	1.851	ppm	
28)	c-12	7.68	12618	1.864	ppm	
29)	2-methylnaphthalene #2	8.76	11732	1.837	ppm	
30)	c-14	9.86	11275	1.831	ppm	
31)	c-16	11.79	11361	1.854	ppm	m
32)	c-18	13.54	11577	1.862	ppm	
33)	c-19	14.36	11216	1.822	ppm	m
34)	c-20	15.13	11162	1.824	ppm	m
36)	c-22	16.59	10980	1.775	ppm	
37)	c-24	17.94	11101	1.790	ppm	m
38)	c-26	19.18	10626	1.731	ppm	m
39)	c-28	20.34f	9125	2.381	ppm	m
40) h	c-30	21.45	100	0.836	ppm	

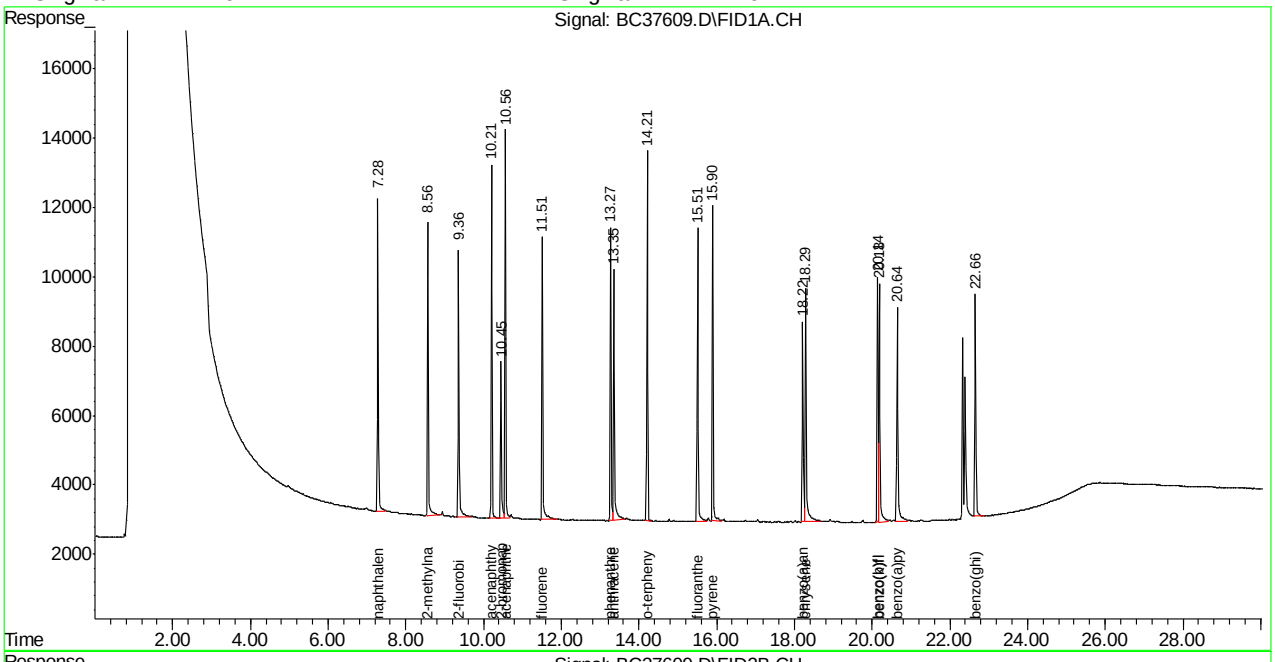
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37609.D EPH031110.M Fri Mar 12 13:48:07 2010 RPGEN1

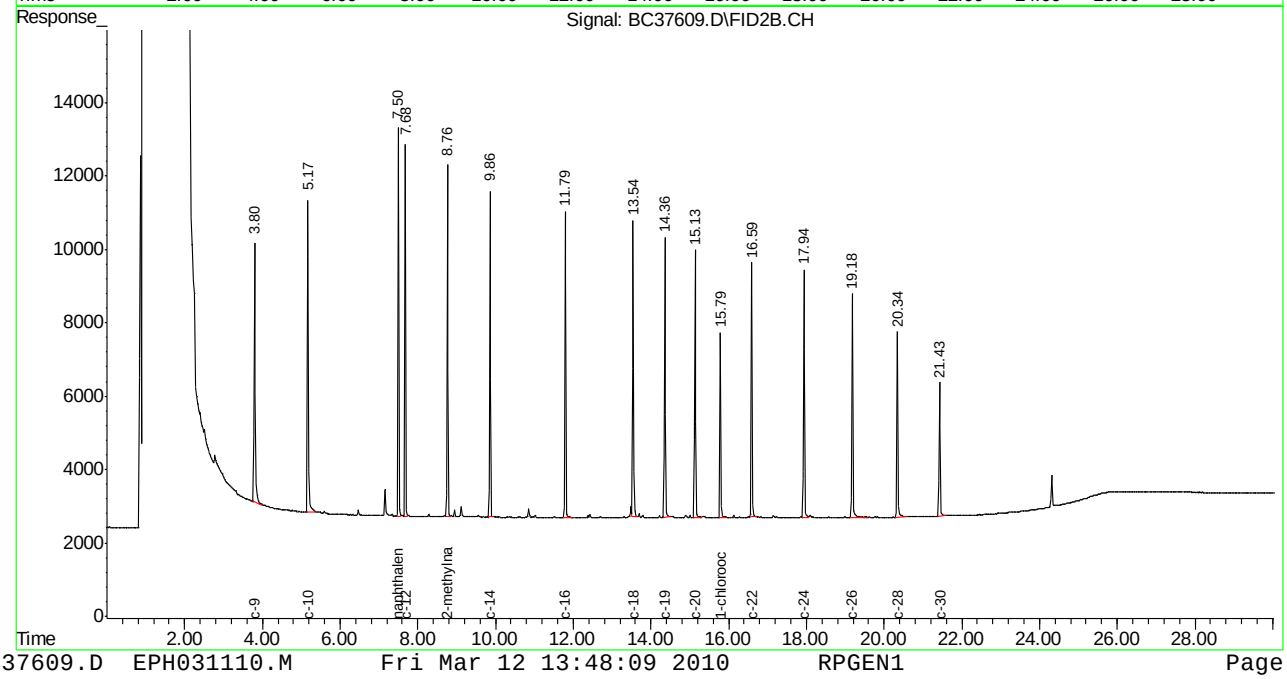
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37609.D\FID1A.CH Vial: 87
Signal #2 : C:\MSDCHEM\1\DATA\BC37609.D\FID2B.CH
Acq On : 3-11-10 03:34:09 PM Operator: KimD
Sample : ic1915-2 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 17:05 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 17:02:33 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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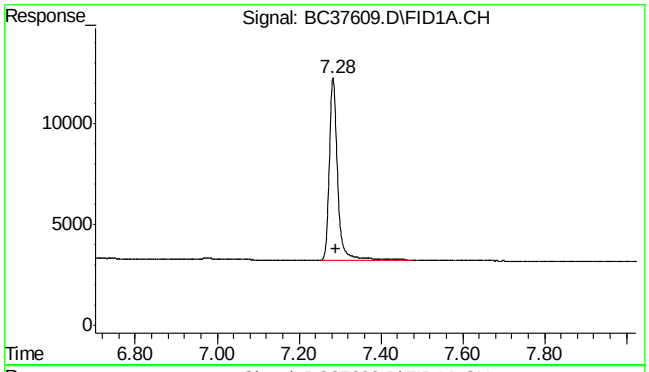
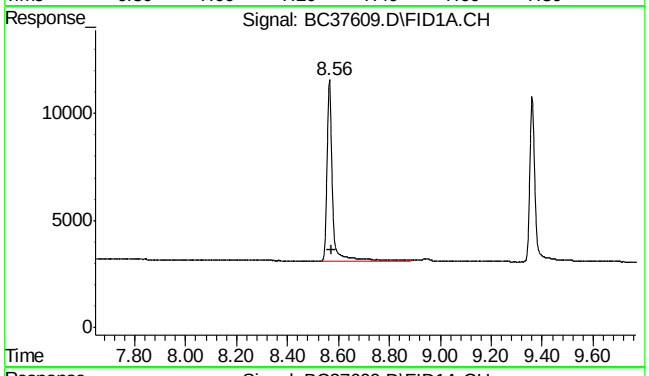


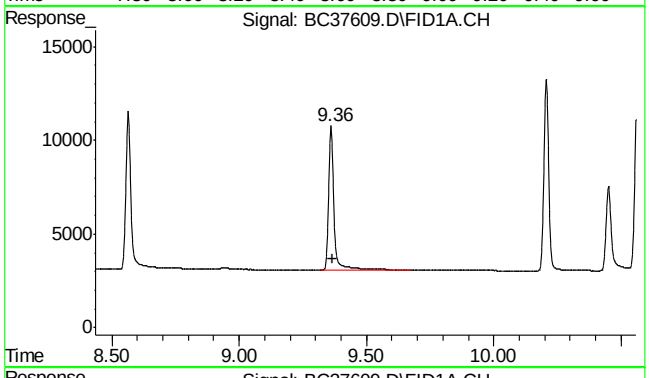
#2 naphthalene

R.T.: 7.283 min
Delta R.T.: -0.007 min
Response: 12752
Conc: 1.87 ppm



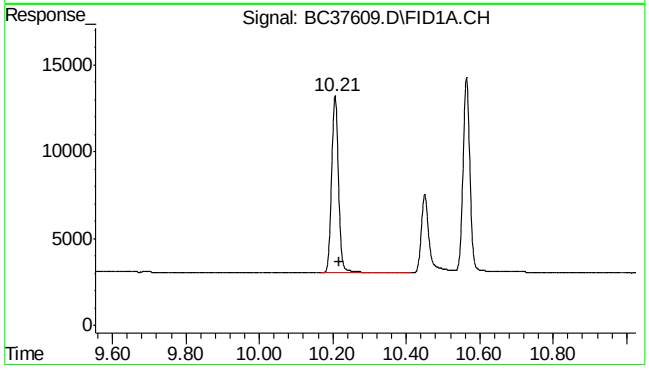
#3 2-methylnaphthalene

R.T.: 8.565 min
Delta R.T.: -0.009 min
Response: 12415
Conc: 1.87 ppm m



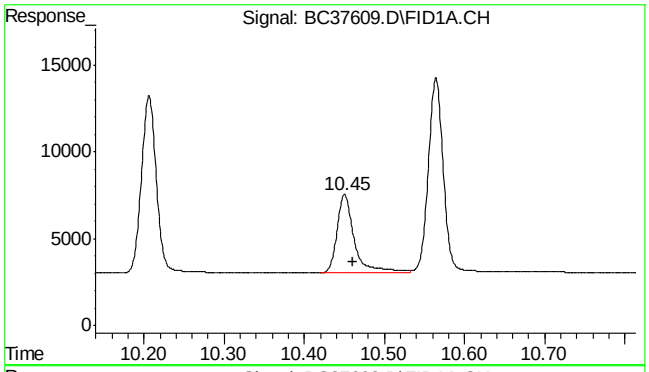
#4 2-fluorobiphenyl

R.T.: 9.360 min
Delta R.T.: -0.008 min
Response: 11444
Conc: 1.89 ppm m



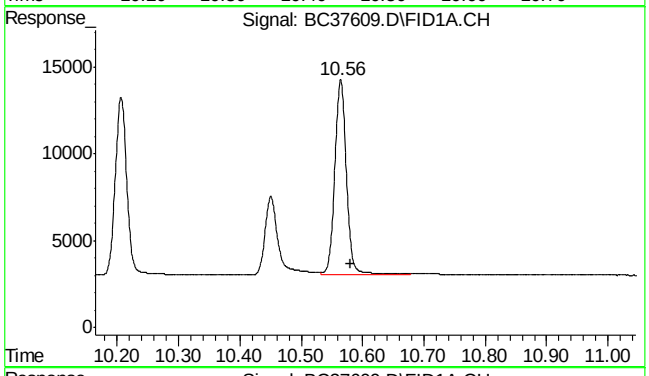
#5 acenaphthylene

R.T.: 10.206 min
Delta R.T.: -0.012 min
Response: 13507
Conc: 1.98 ppm m



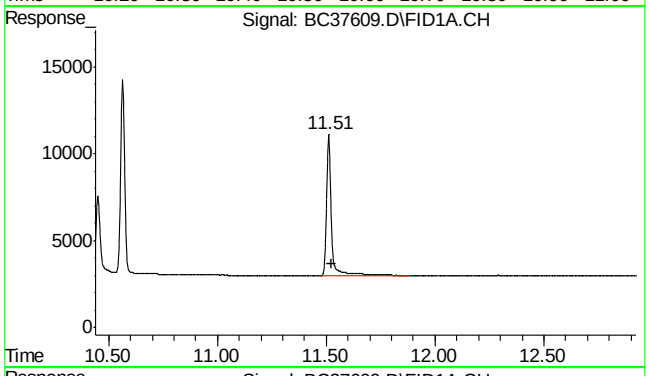
#6 2-bromonaphthalene

R.T.: 10.450 min
Delta R.T.: -0.010 min
Response: 6812
Conc: 1.67 ppm



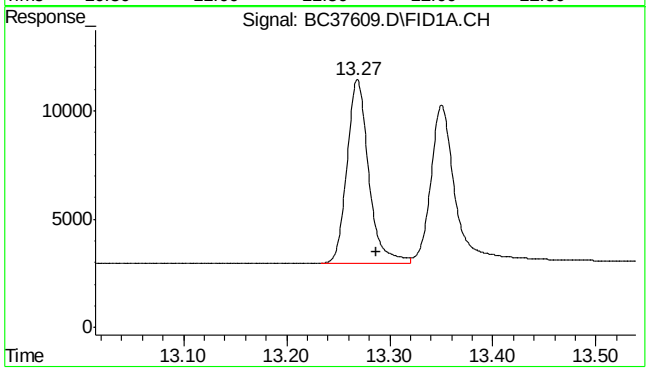
#7 acenaphthene

R.T.: 10.565 min
Delta R.T.: -0.016 min
Response: 14932
Conc: 2.10 ppm m



#8 fluorene

R.T.: 11.511 min
Delta R.T.: -0.014 min
Response: 12521
Conc: 1.88 ppm m



#9 phenanthrene

R.T.: 13.268 min
Delta R.T.: -0.019 min
Response: 12418
Conc: 1.81 ppm

10.5.17 10

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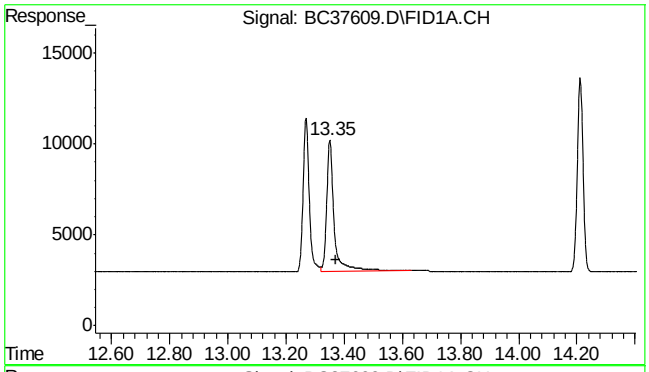
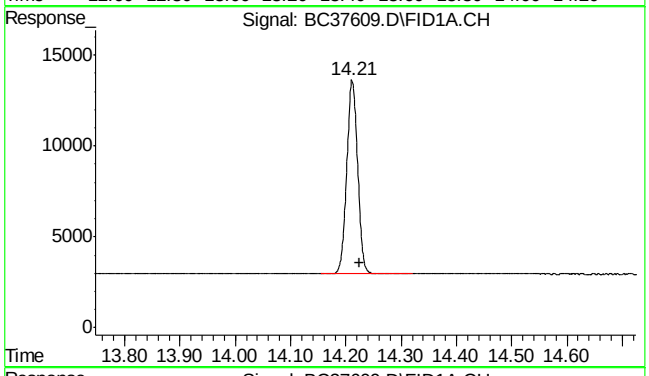


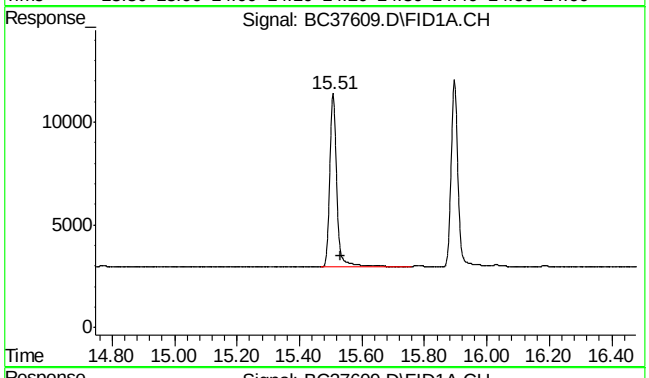
#10 anthracene

R.T.: 13.350 min
Delta R.T.: -0.022 min
Response: 12992
Conc: 1.93 ppm m



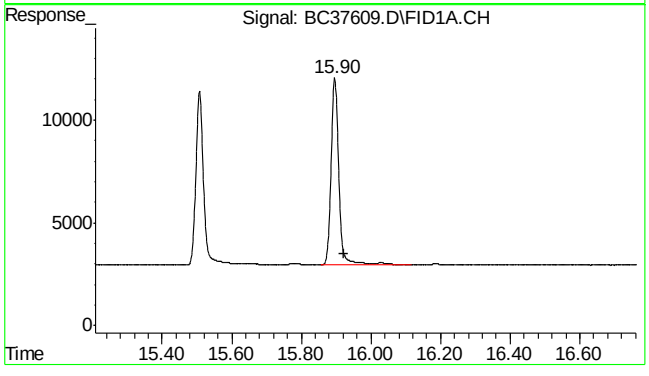
#11 o-terphenyl

R.T.: 14.210 min
Delta R.T.: -0.015 min
Response: 14694
Conc: 2.07 ppm m



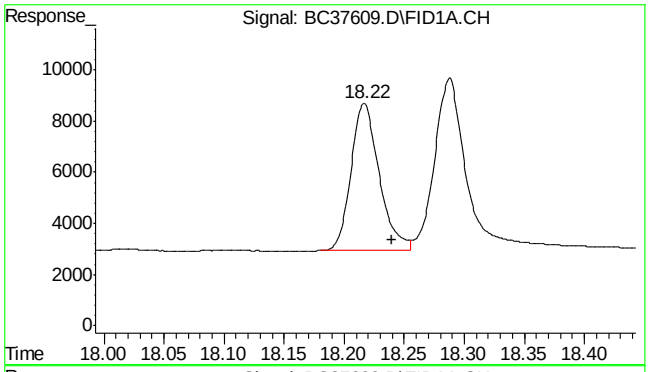
#12 fluoranthene

R.T.: 15.507 min
Delta R.T.: -0.023 min
Response: 13420
Conc: 1.95 ppm m



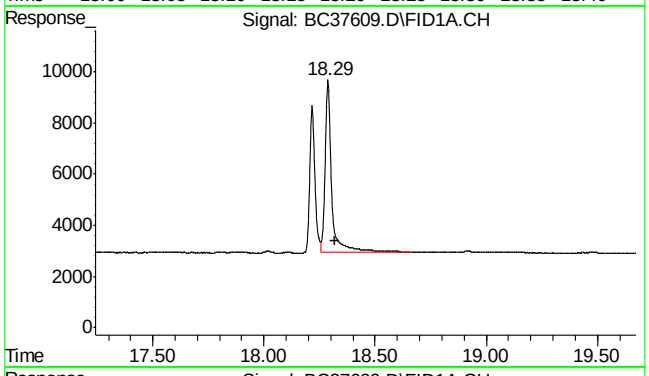
#13 pyrene

R.T.: 15.895 min
Delta R.T.: -0.026 min
Response: 14126
Conc: 1.99 ppm m



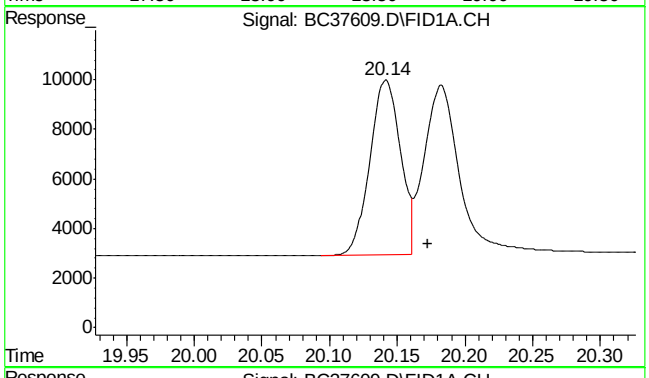
#14 benzo(a)anthracene

R.T.: 18.217 min
Delta R.T.: -0.022 min
Response: 9459
Conc: 1.90 ppm



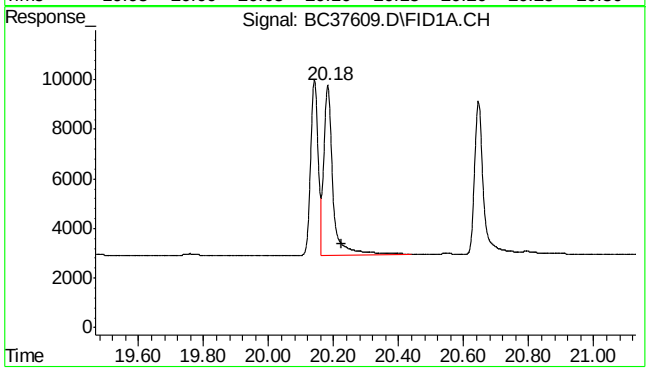
#15 chrysene

R.T.: 18.288 min
Delta R.T.: -0.032 min
Response: 13723
Conc: 2.02 ppm m



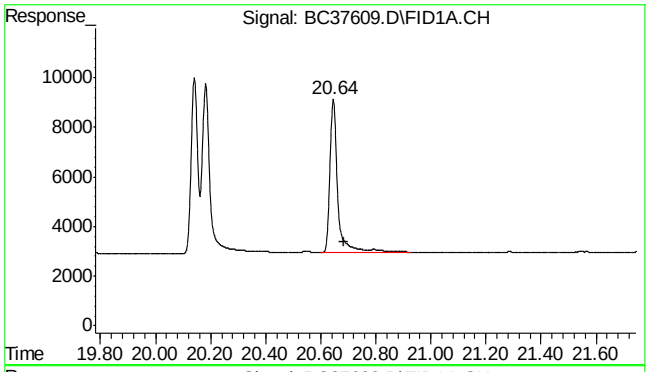
#16 benzo(b)fluoranthene

R.T.: 20.141 min
Delta R.T.: -0.032 min
Response: 11132
Conc: 1.76 ppm m



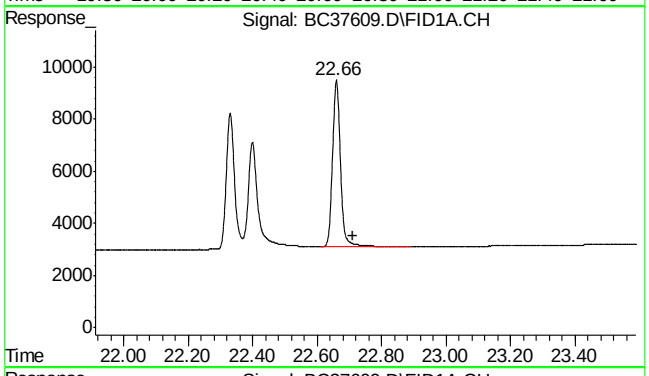
#17 benzo(k)fluoranthene

R.T.: 20.182 min
Delta R.T.: -0.044 min
Response: 13642
Conc: 2.11 ppm m



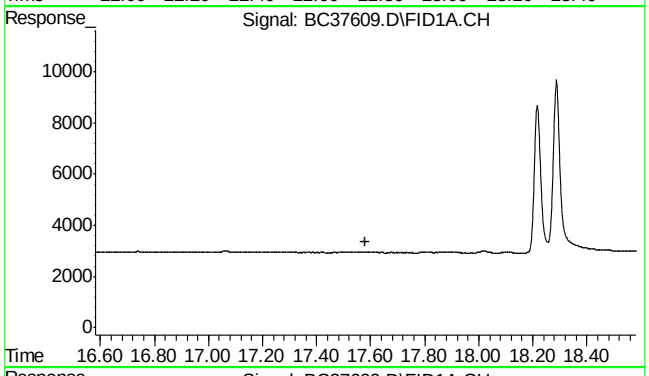
#18 benzo(a)pyrene

R.T.: 20.645 min
Delta R.T.: -0.039 min
Response: 12445
Conc: 1.97 ppm m



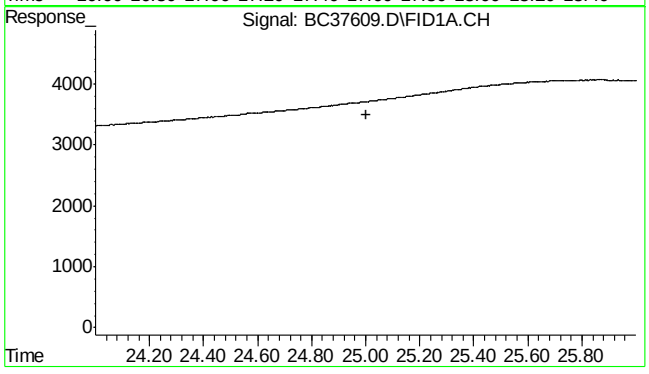
#21 benzo(ghi)perylene

R.T.: 22.660 min
Delta R.T.: -0.052 min
Response: 10964
Conc: 326.60 ppm m



#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.

10.5.17 10

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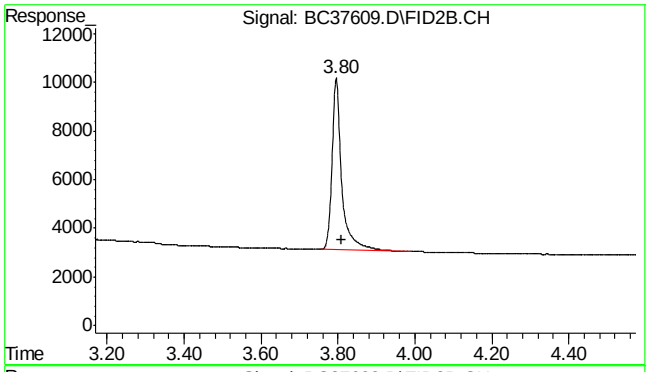
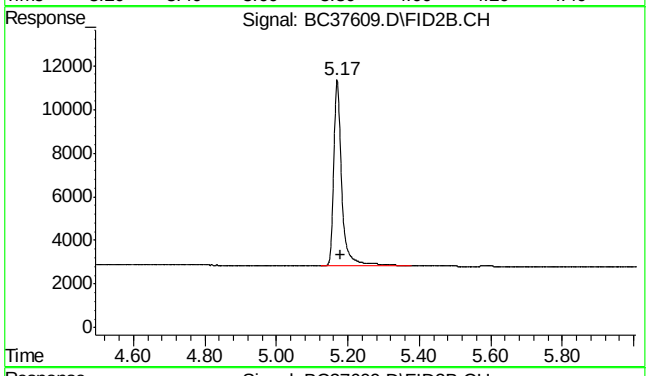


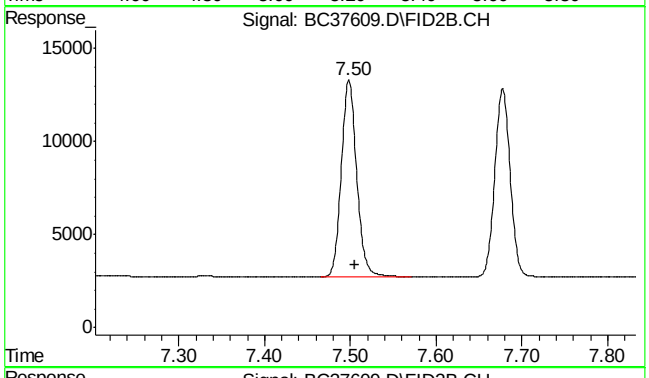
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 12384
Conc: 1.89 ppm m



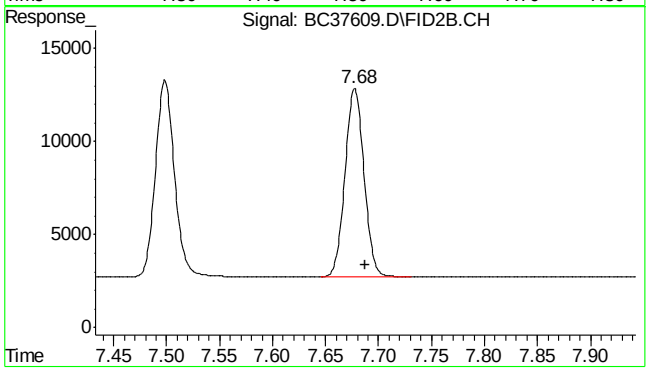
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 13254
Conc: 1.99 ppm m



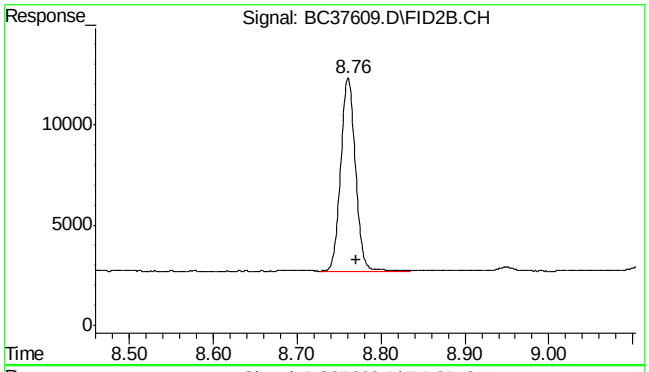
#27 naphthalene #2

R.T.: 7.498 min
Delta R.T.: -0.008 min
Response: 13221
Conc: 1.85 ppm



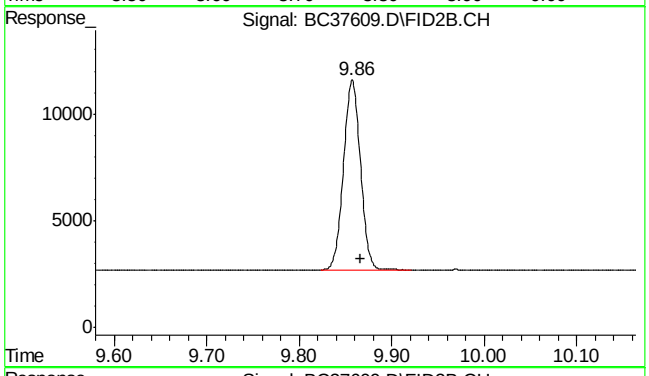
#28 c-12

R.T.: 7.677 min
Delta R.T.: -0.010 min
Response: 12618
Conc: 1.86 ppm



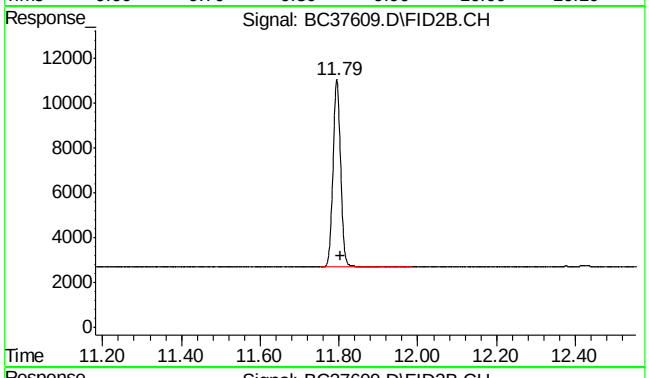
#29 2-methylnaphthalene #2

R.T.: 8.760 min
Delta R.T.: -0.010 min
Response: 11732
Conc: 1.84 ppm



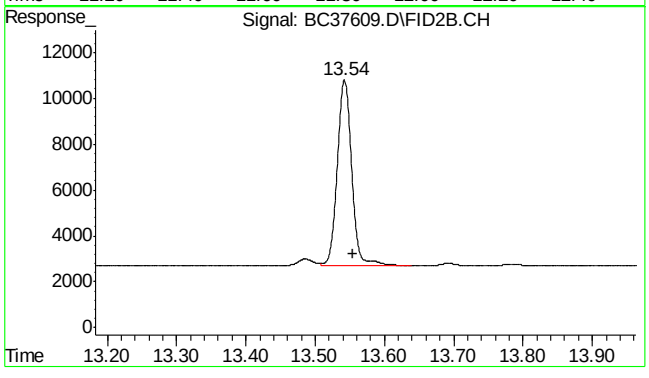
#30 c-14

R.T.: 9.857 min
Delta R.T.: -0.009 min
Response: 11275
Conc: 1.83 ppm



#31 c-16

R.T.: 11.795 min
Delta R.T.: -0.010 min
Response: 11361
Conc: 1.85 ppm m



#32 c-18

R.T.: 13.542 min
Delta R.T.: -0.012 min
Response: 11577
Conc: 1.86 ppm

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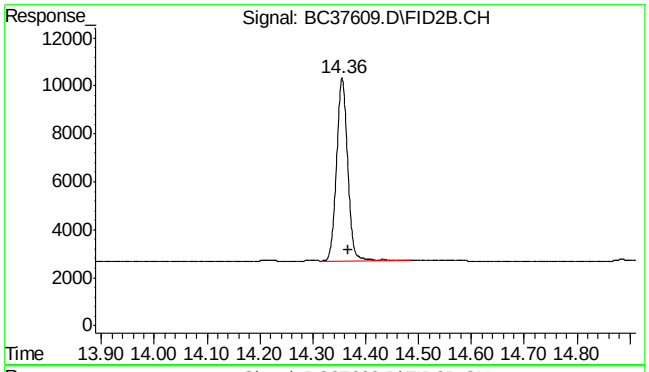
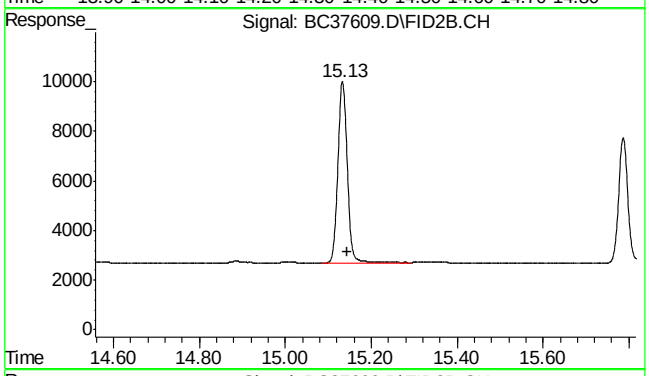


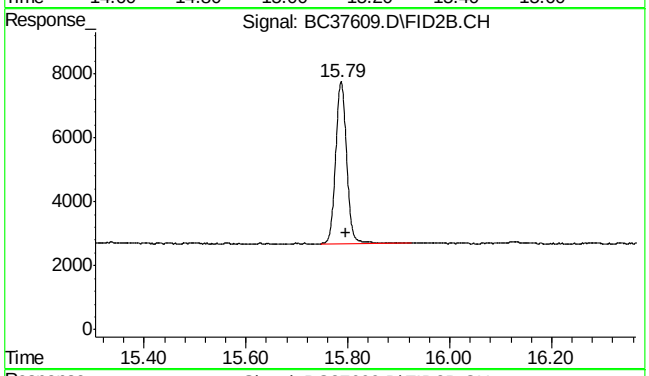
#33 c-19

R.T.: 14.355 min
Delta R.T.: -0.012 min
Response: 11216
Conc: 1.82 ppm m



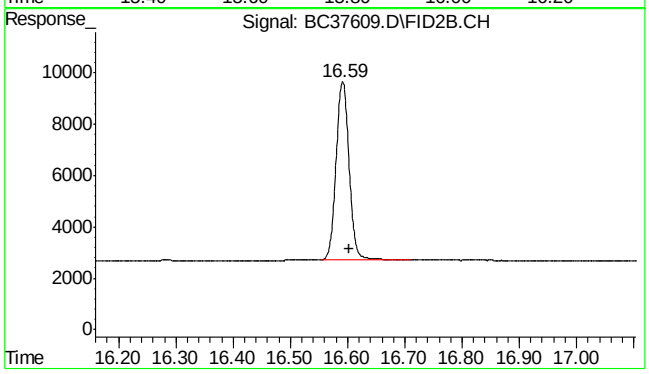
#34 c-20

R.T.: 15.133 min
Delta R.T.: -0.011 min
Response: 11162
Conc: 1.82 ppm m



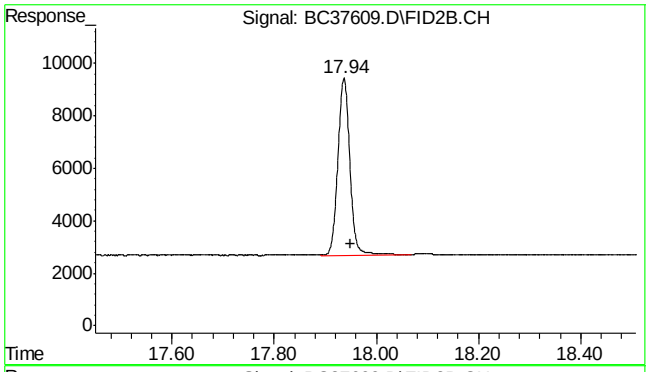
#35 1-chlorooctadecane

R.T.: 15.786 min
Delta R.T.: -0.010 min
Response: 7616
Conc: 1.55 ppm m



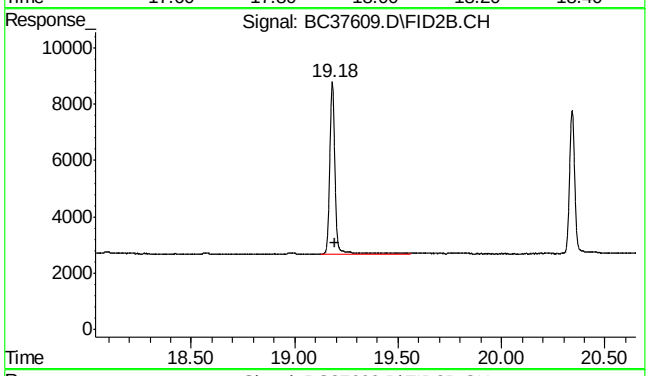
#36 c-22

R.T.: 16.591 min
Delta R.T.: -0.012 min
Response: 10980
Conc: 1.78 ppm



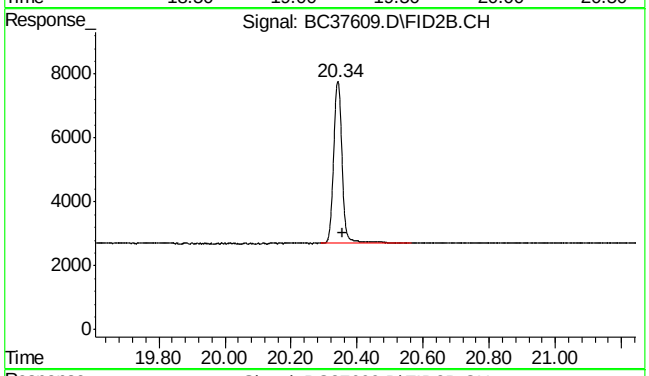
#37 c-24

R.T.: 17.937 min
Delta R.T.: -0.012 min
Response: 11101
Conc: 1.79 ppm m



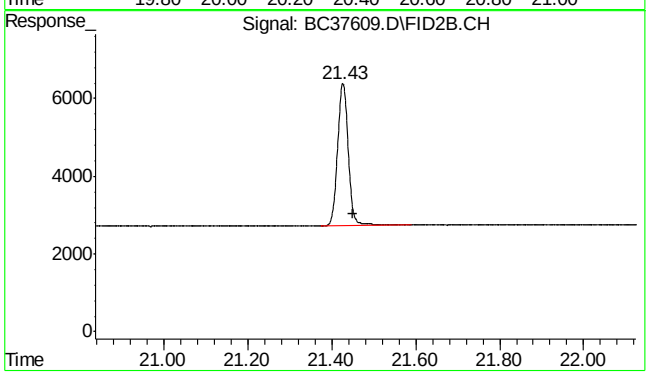
#38 c-26

R.T.: 19.181 min
Delta R.T.: -0.014 min
Response: 10626
Conc: 1.73 ppm m



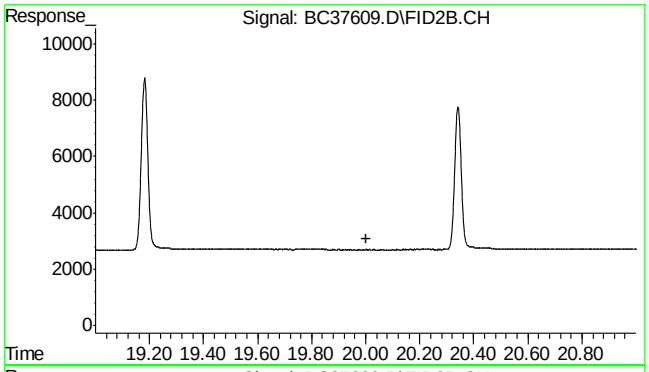
#39 c-28

R.T.: 20.341 min
Delta R.T.: -0.016 min
Response: 9125
Conc: 2.38 ppm m



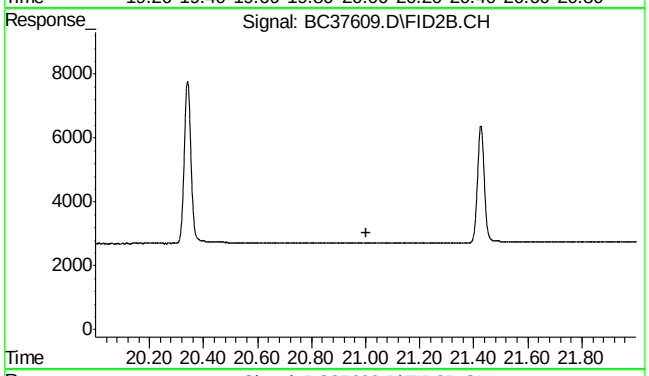
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 100
Conc: 0.84 ppm m



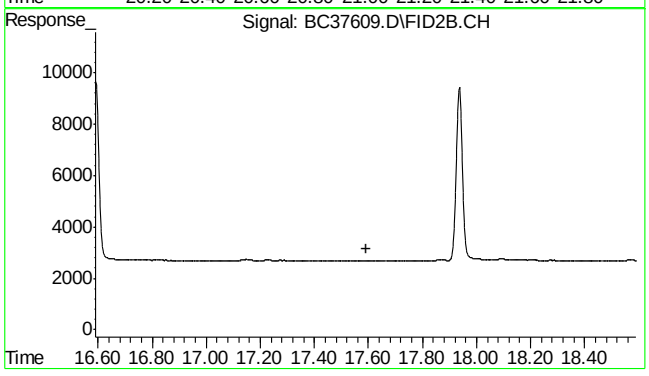
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

BC37610.D

Manual Integrations APPROVED (compounds with "m" flag)

John Hamilton 03/15/10 14:19

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37610.D\FID1A.CH Vial: 89
Signal #2 : C:\MSDCHEM\1\DATA\BC37610.D\FID2B.CH
Acq On : 3-11-10 04:13:43 PM Operator: KimD
Sample : ic1915-1 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 17:06:58 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 17:06:04 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
4) s 2-fluorobiphenyl	9.36	5265	0.876 ppm	m
Spiked Amount 20.000 Range 40 - 140		Recovery =	4.38%#	
6) s 2-bromonaphthalene	10.45	2765	0.699 ppm	m
Spiked Amount 20.000 Range 40 - 140		Recovery =	3.49%#	
11) s o-terphenyl	14.21	7108	0.994 ppm	m
Spiked Amount 20.000 Range 40 - 140		Recovery =	4.97%#	
35) s 1-chlorooctadecane	15.79	3690	0.780 ppm	m
Spiked Amount 20.000 Range 40 - 140		Recovery =	3.90%#	
Target Compounds				
2) naphthalene	7.28	6128	0.910 ppm	m
3) 2-methylnaphthalene	8.57	5583	0.850 ppm	m
5) acenaphthylene	10.21	6384	0.936 ppm	m
7) acenaphthene	10.56	7048	0.983 ppm	m
8) fluorene	11.51	6055	0.919 ppm	m
9) phenanthrene	13.27	5563	0.824 ppm	m
10) anthracene	13.35f	5967	0.890 ppm	m
12) fluoranthene	15.51	6286	0.916 ppm	m
13) pyrene	15.90f	6436	0.909 ppm	m
14) benzo(a)anthracene	18.22	3705	0.934 ppm	m
15) chrysene	18.29f	6624	0.975 ppm	m
16) benzo(b)fluoranthene	20.14f	4688	0.758 ppm	m
17) benzo(k)fluoranthene	20.18f	6250	0.957 ppm	m
18) benzo(a)pyrene	20.65f	5409	0.858 ppm	m
21) benzo(ghi)perylene	22.66f	4843	324.941 ppm	m
25) h c-9	3.81	6611	1.018 ppm	
26) h c-10	5.18	7162	1.076 ppm	
27) naphthalene #2	7.50	6800	0.964 ppm	m
28) c-12	7.68	6620	0.989 ppm	m
29) 2-methylnaphthalene #2	8.76	5964	0.947 ppm	m
30) c-14	9.86	5879	0.968 ppm	m
31) c-16	11.80	5733	0.947 ppm	m
32) c-18	13.54	5761	0.938 ppm	m
33) c-19	14.36	5576	0.919 ppm	
34) c-20	15.13	5520	0.915 ppm	m
36) c-22	16.59	5539	0.913 ppm	m
37) c-24	17.94	5454	0.895 ppm	m
38) c-26	19.18	5248	0.875 ppm	m
39) c-28	20.34f	4402	1.538 ppm	m
40) h c-30	21.45	114	1.181 ppm	

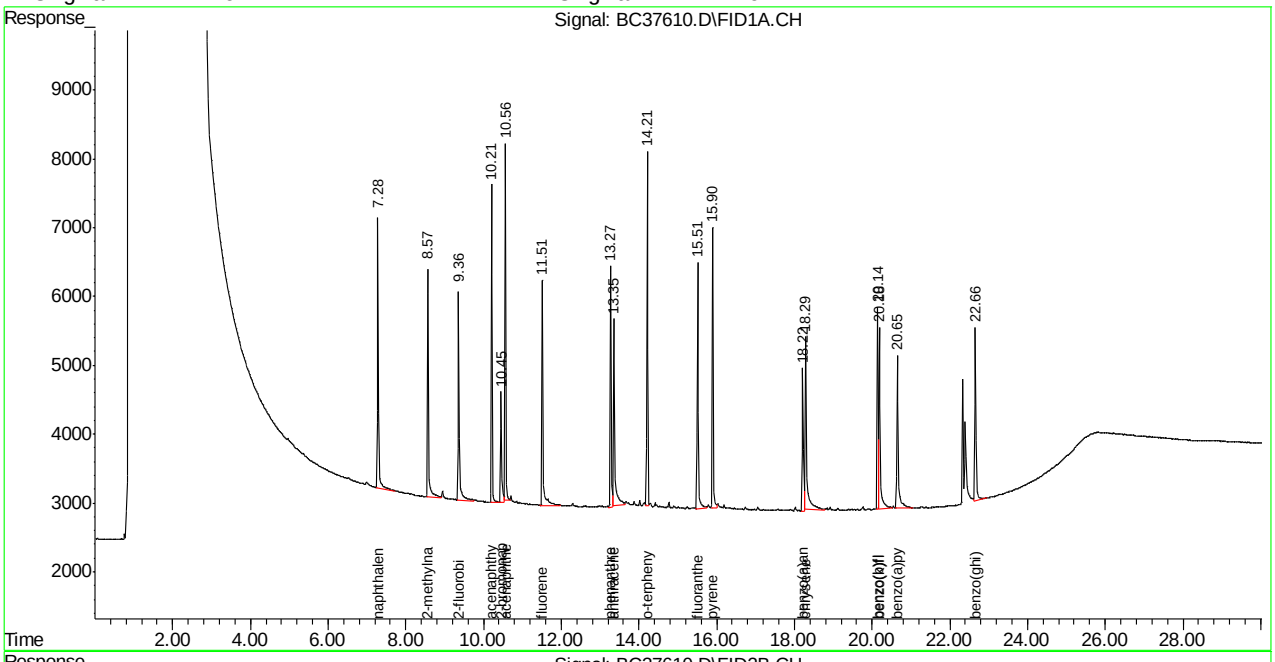
(f)=RT Delta > 1/2 Window (m)=manual int.
BC37610.D EPH031110.M Fri Mar 12 13:48:33 2010 RPGEN1

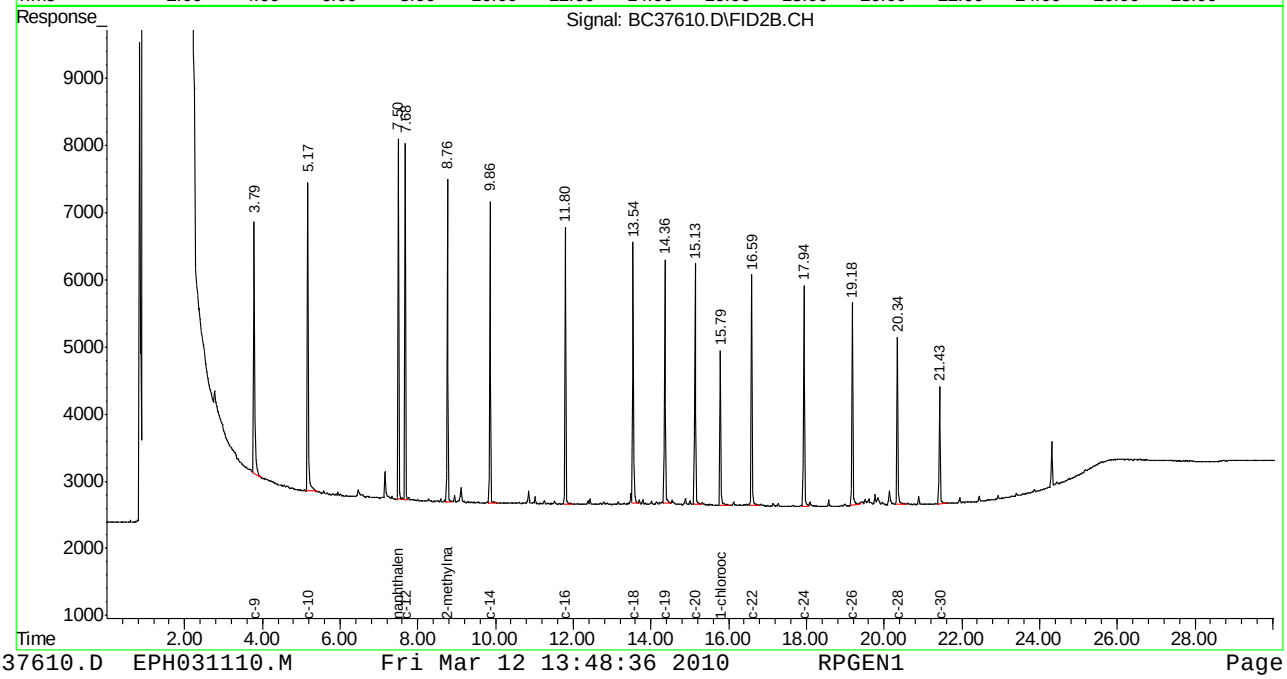
Quantitation Report (QT Reviewed)

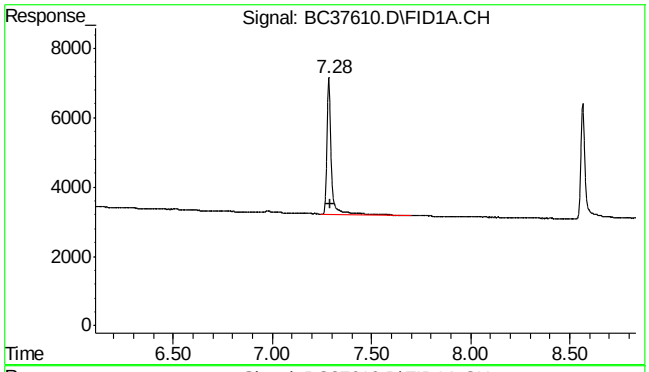
Signal #1 : C:\MSDCHEM\1\DATA\BC37610.D\FID1A.CH Vial: 89
Signal #2 : C:\MSDCHEM\1\DATA\BC37610.D\FID2B.CH
Acq On : 3-11-10 04:13:43 PM Operator: KimD
Sample : ic1915-1 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 11 17:10 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Thu Mar 11 17:06:04 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

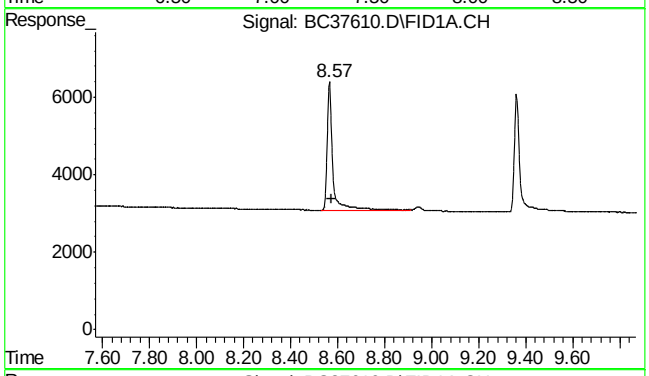






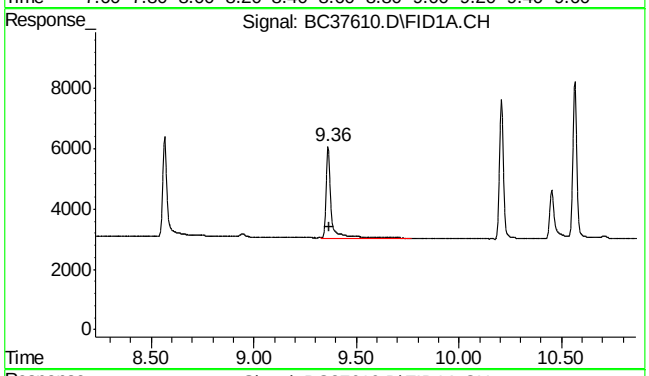
#2 naphthalene

R.T.: 7.284 min
Delta R.T.: -0.006 min
Response: 6128
Conc: 0.91 ppm m



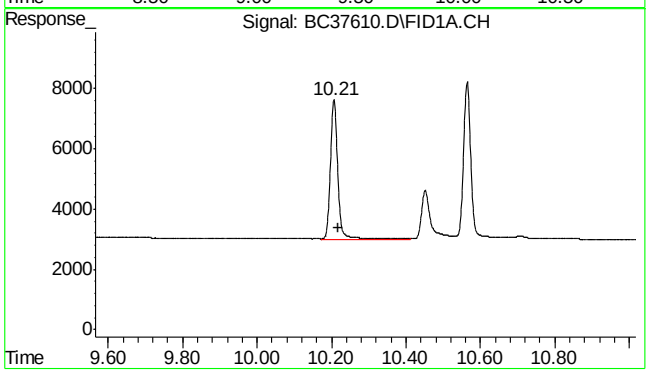
#3 2-methylnaphthalene

R.T.: 8.565 min
Delta R.T.: -0.008 min
Response: 5583
Conc: 0.85 ppm m



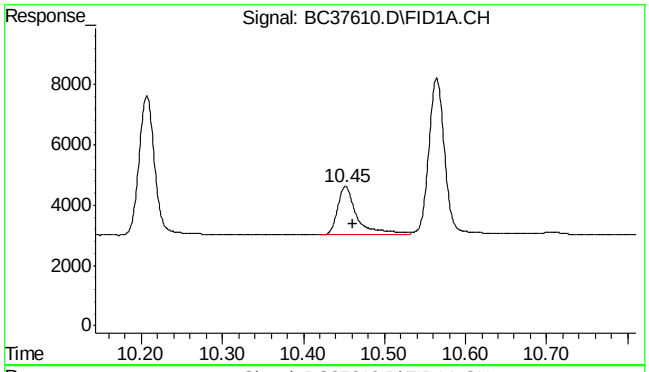
#4 2-fluorobiphenyl

R.T.: 9.361 min
Delta R.T.: -0.008 min
Response: 5265
Conc: 0.88 ppm m



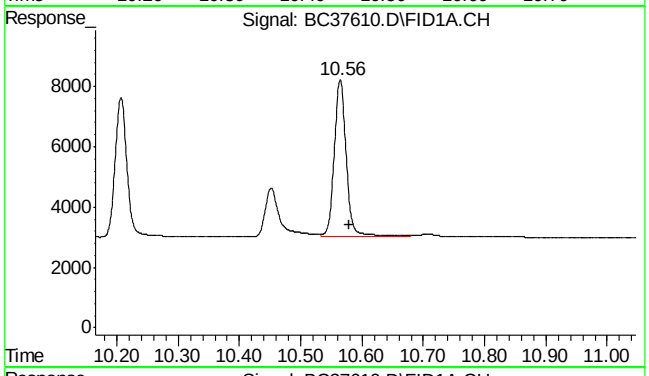
#5 acenaphthylene

R.T.: 10.207 min
Delta R.T.: -0.012 min
Response: 6384
Conc: 0.94 ppm m



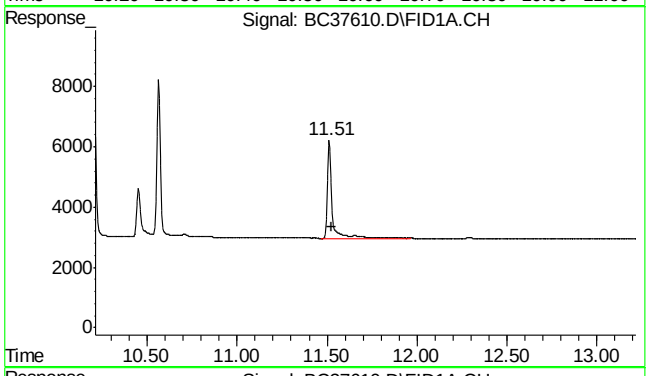
#6 2-bromonaphthalene

R.T.: 10.452 min
Delta R.T.: -0.008 min
Response: 2765
Conc: 0.70 ppm m



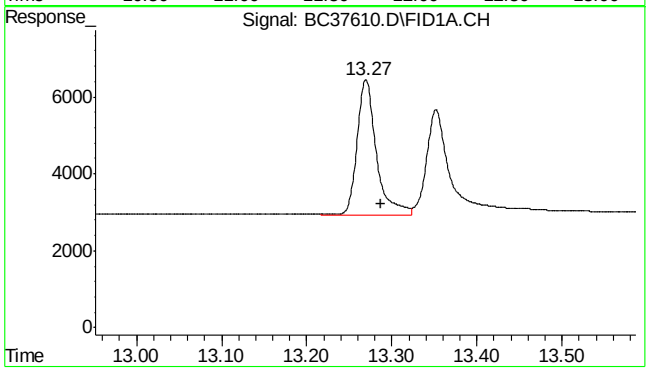
#7 acenaphthene

R.T.: 10.564 min
Delta R.T.: -0.016 min
Response: 7048
Conc: 0.98 ppm m



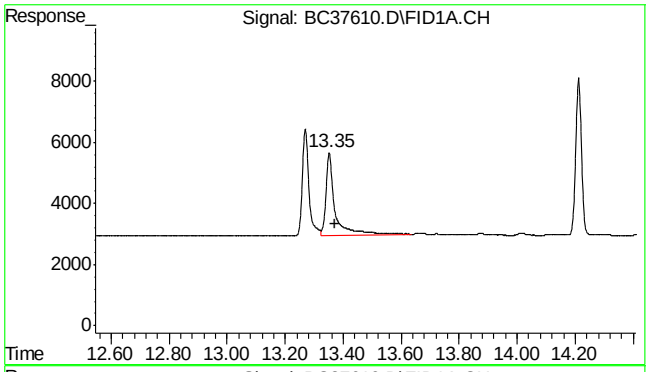
#8 fluorene

R.T.: 11.511 min
Delta R.T.: -0.014 min
Response: 6055
Conc: 0.92 ppm m



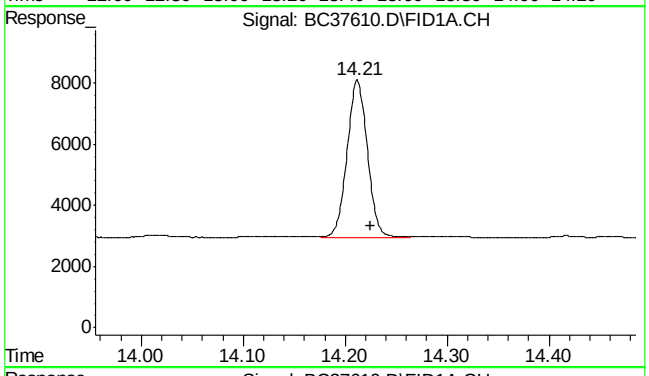
#9 phenanthrene

R.T.: 13.269 min
Delta R.T.: -0.018 min
Response: 5563
Conc: 0.82 ppm m



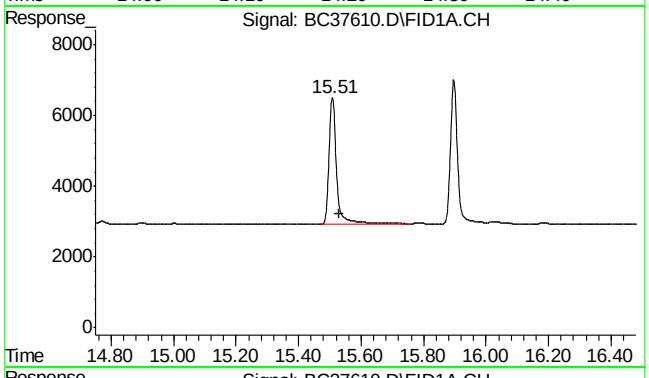
#10 anthracene

R.T.: 13.352 min
Delta R.T.: -0.020 min
Response: 5967
Conc: 0.89 ppm m



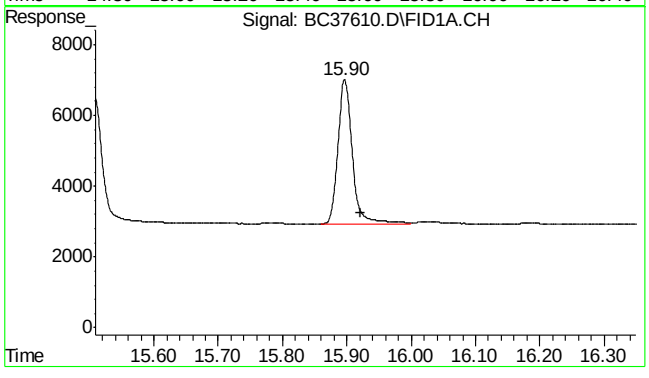
#11 o-terphenyl

R.T.: 14.212 min
Delta R.T.: -0.013 min
Response: 7108
Conc: 0.99 ppm m



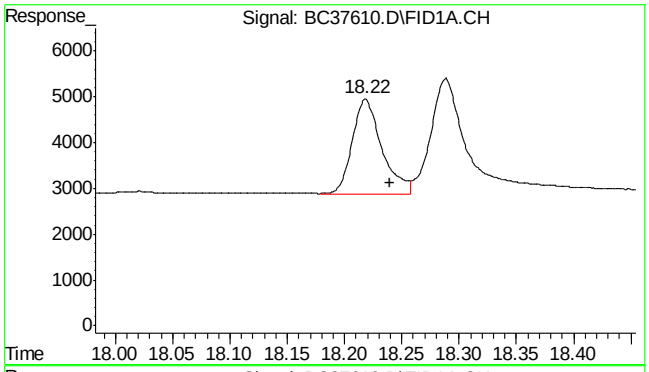
#12 fluoranthene

R.T.: 15.508 min
Delta R.T.: -0.023 min
Response: 6286
Conc: 0.92 ppm m



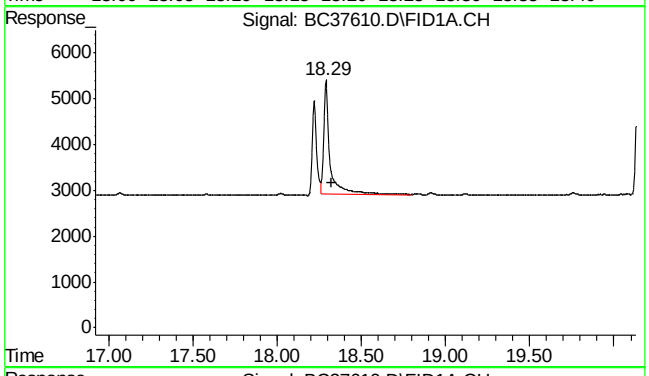
#13 pyrene

R.T.: 15.896 min
Delta R.T.: -0.025 min
Response: 6436
Conc: 0.91 ppm m



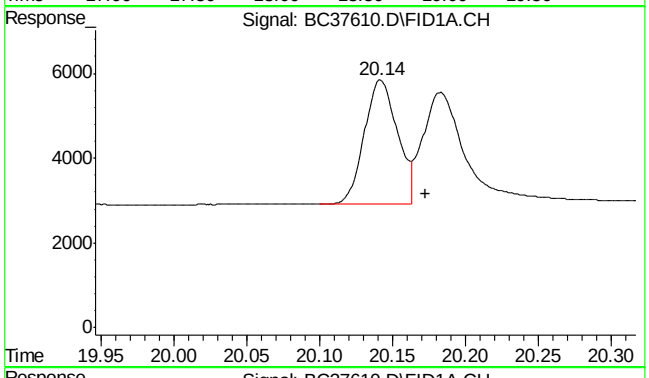
#14 benzo(a)anthracene

R.T.: 18.218 min
Delta R.T.: -0.022 min
Response: 3705
Conc: 0.93 ppm m



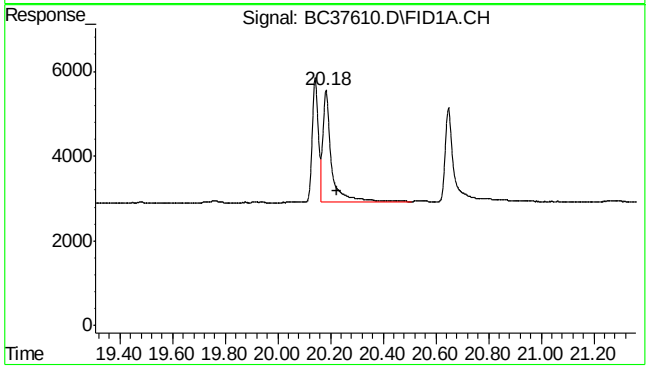
#15 chrysene

R.T.: 18.288 min
Delta R.T.: -0.031 min
Response: 6624
Conc: 0.97 ppm m



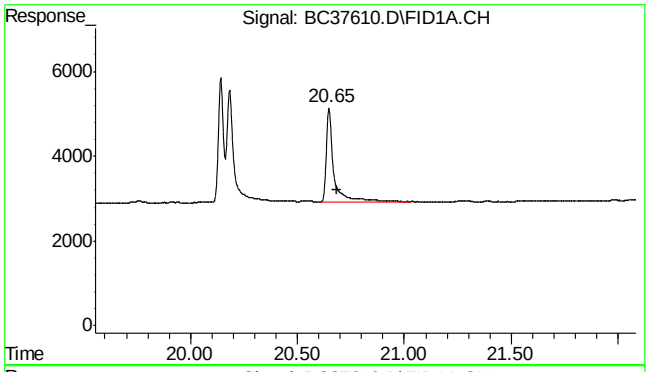
#16 benzo(b)fluoranthene

R.T.: 20.141 min
Delta R.T.: -0.032 min
Response: 4688
Conc: 0.76 ppm m



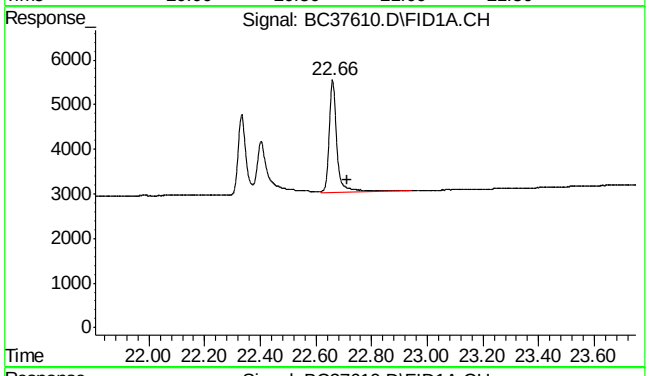
#17 benzo(k)fluoranthene

R.T.: 20.183 min
Delta R.T.: -0.043 min
Response: 6250
Conc: 0.96 ppm m



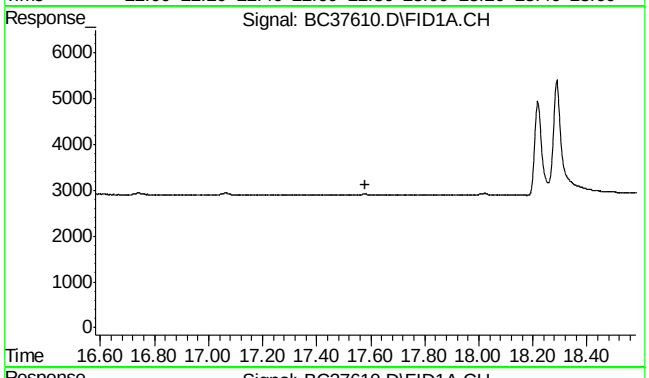
#18 benzo(a)pyrene

R.T.: 20.648 min
Delta R.T.: -0.036 min
Response: 5409
Conc: 0.86 ppm m



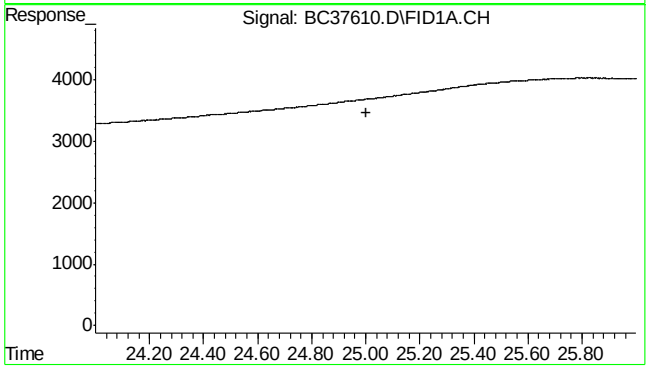
#21 benzo(ghi)perylene

R.T.: 22.658 min
Delta R.T.: -0.053 min
Response: 4843
Conc: 324.94 ppm m



#22 bht

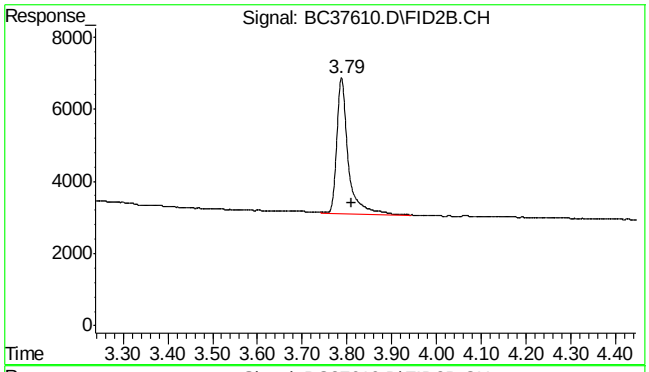
R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



#23 BHT

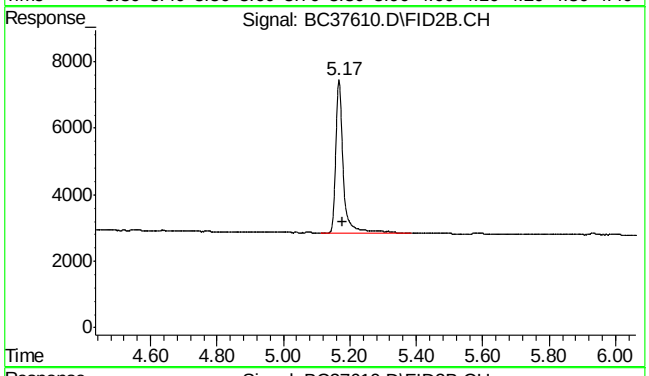
R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.

ACCUTEST Laboratories F71731



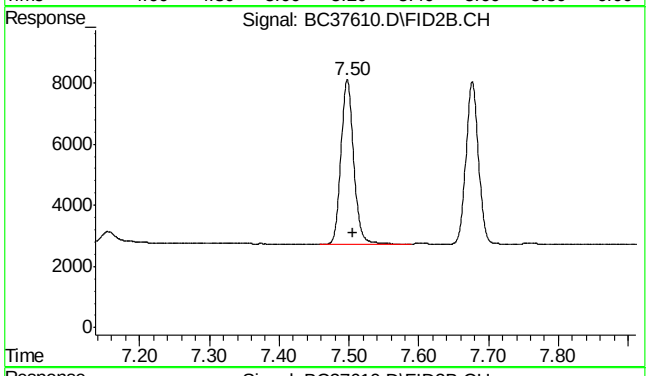
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 6611
Conc: 1.02 ppm m



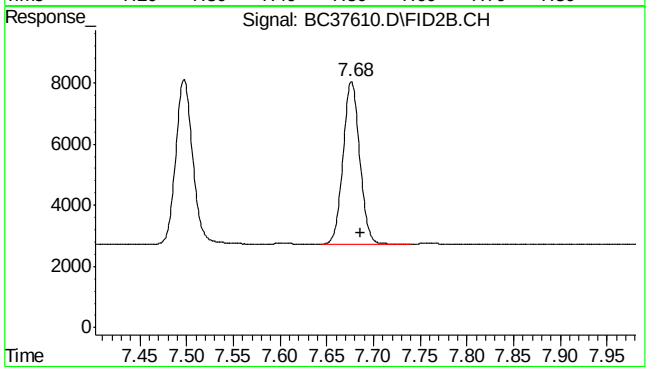
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 7162
Conc: 1.08 ppm m



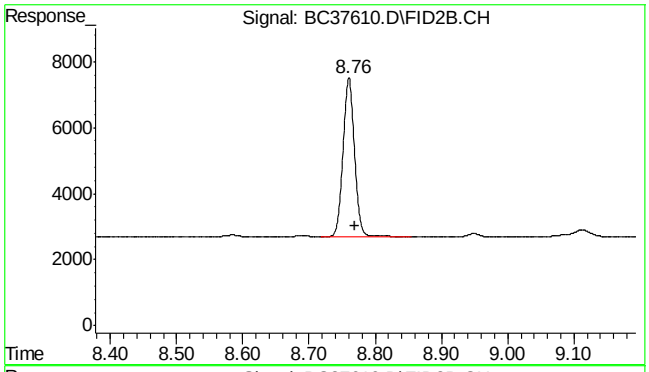
#27 naphthalene #2

R.T.: 7.497 min
Delta R.T.: -0.009 min
Response: 6800
Conc: 0.96 ppm m



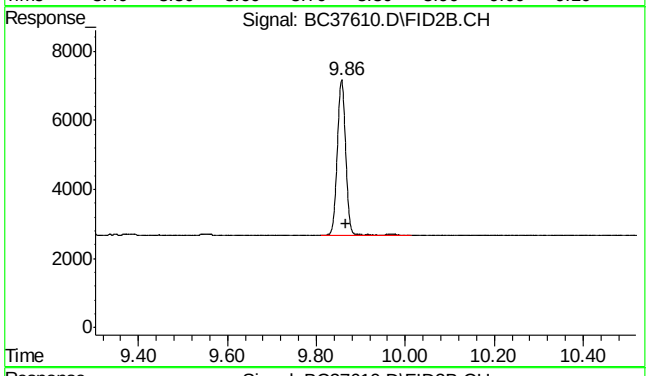
#28 c-12

R.T.: 7.676 min
Delta R.T.: -0.011 min
Response: 6620
Conc: 0.99 ppm m



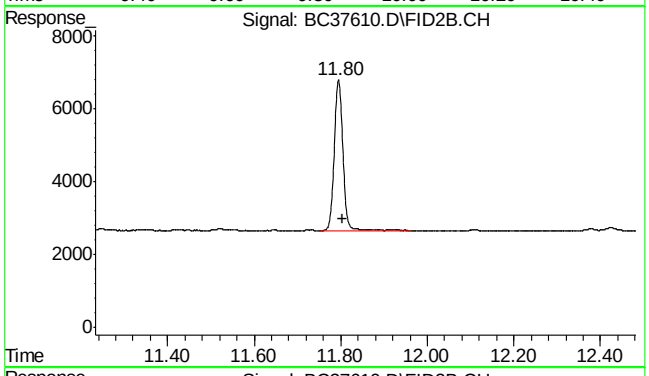
#29 2-methylnaphthalene #2

R.T.: 8.760 min
Delta R.T.: -0.010 min
Response: 5964
Conc: 0.95 ppm m



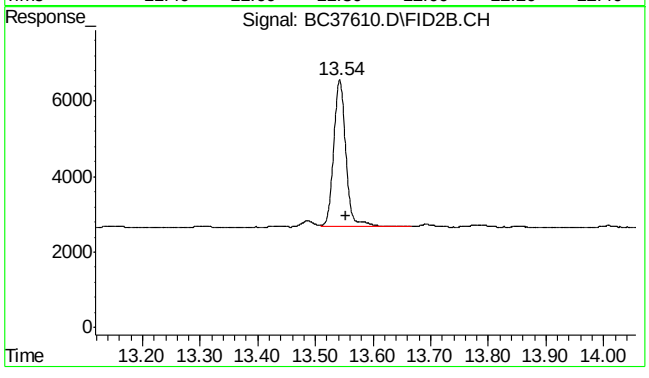
#30 c-14

R.T.: 9.857 min
Delta R.T.: -0.009 min
Response: 5879
Conc: 0.97 ppm m



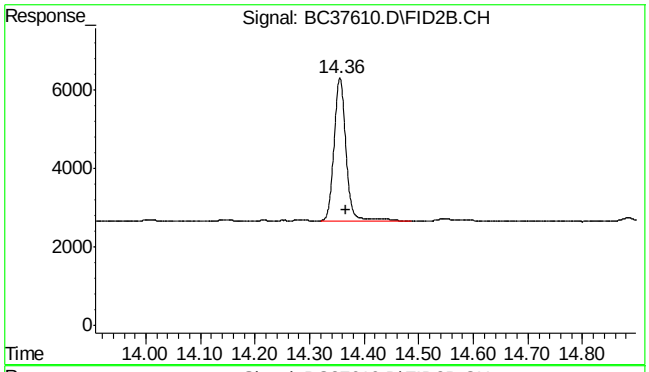
#31 c-16

R.T.: 11.795 min
Delta R.T.: -0.009 min
Response: 5733
Conc: 0.95 ppm m



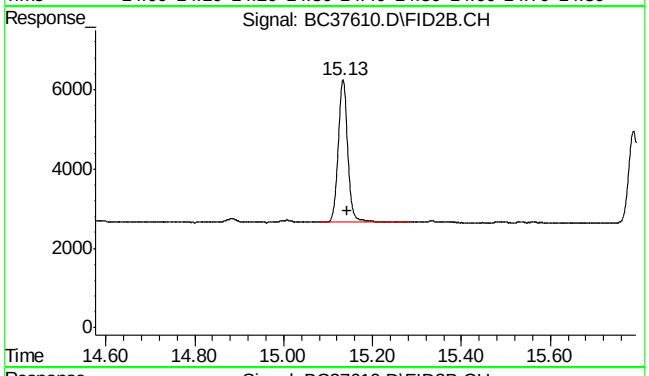
#32 c-18

R.T.: 13.542 min
Delta R.T.: -0.012 min
Response: 5761
Conc: 0.94 ppm m



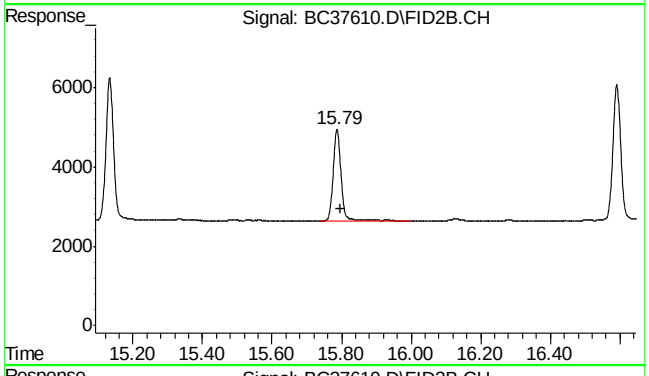
#33 c-19

R.T.: 14.355 min
Delta R.T.: -0.012 min
Response: 5576
Conc: 0.92 ppm



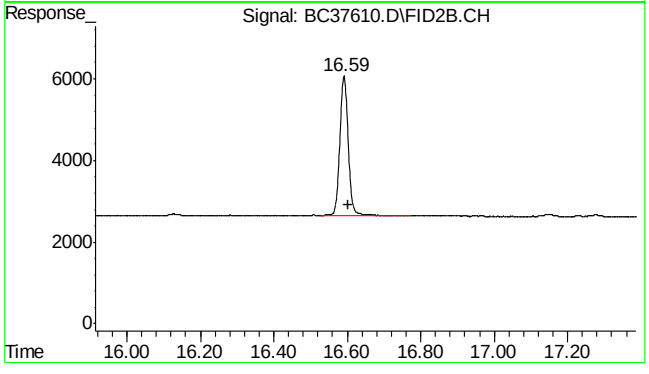
#34 c-20

R.T.: 15.133 min
Delta R.T.: -0.010 min
Response: 5520
Conc: 0.92 ppm m



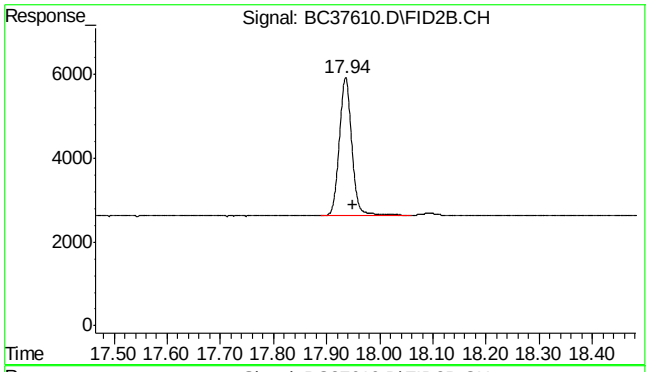
#35 1-chlorooctadecane

R.T.: 15.787 min
Delta R.T.: -0.009 min
Response: 3690
Conc: 0.78 ppm m



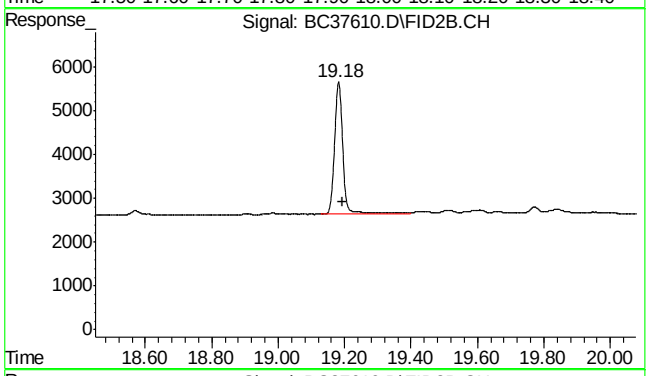
#36 c-22

R.T.: 16.591 min
Delta R.T.: -0.012 min
Response: 5539
Conc: 0.91 ppm m



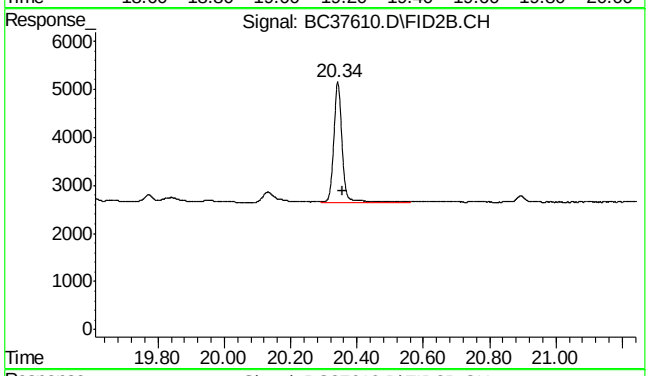
#37 c-24

R.T.: 17.935 min
Delta R.T.: -0.013 min
Response: 5454
Conc: 0.90 ppm m



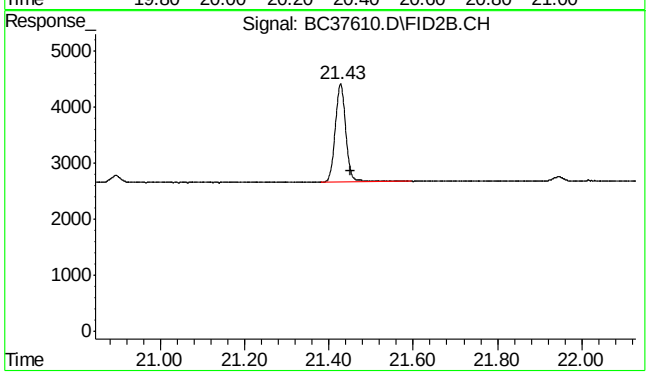
#38 c-26

R.T.: 19.182 min
Delta R.T.: -0.013 min
Response: 5248
Conc: 0.87 ppm m



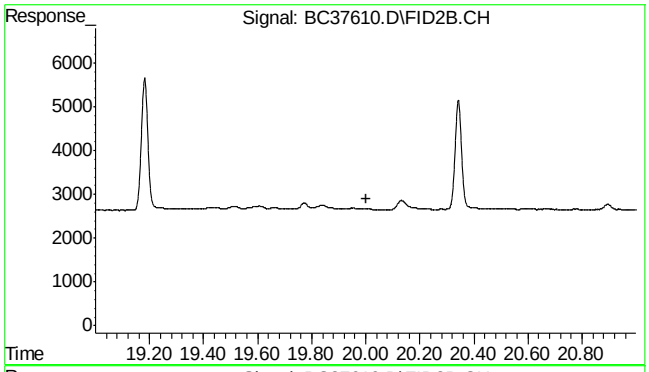
#39 c-28

R.T.: 20.342 min
Delta R.T.: -0.015 min
Response: 4402
Conc: 1.54 ppm m



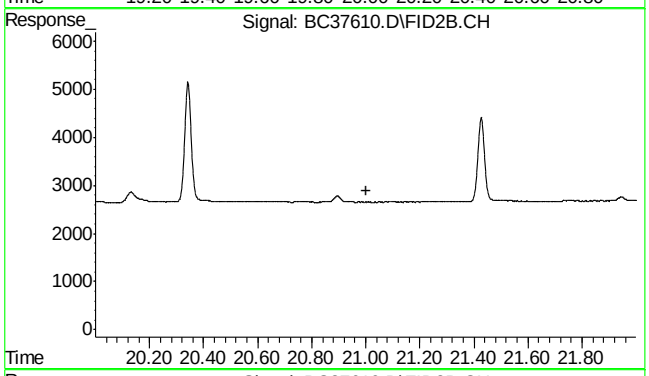
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 114
Conc: 1.18 ppm m



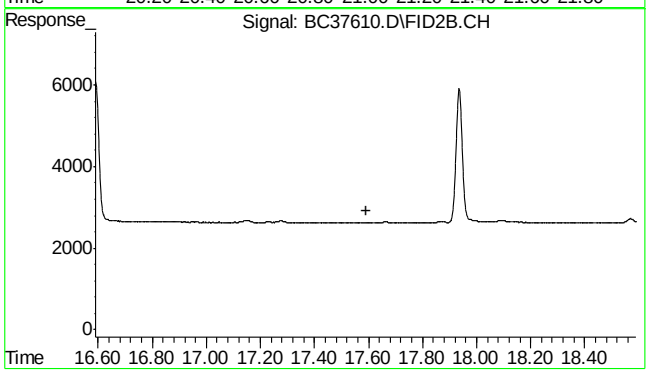
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.18 10

Manual Integrations
APPROVED
(compounds with "m" flag)
Nancy Ma
03/12/10 14:24

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37611.D\FID1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37611.D\FID2B.CH
Acq On : 3-11-10 04:53:04 PM Operator: KimD
Sample : icv1915-50 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:50:47 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	299635	50.777 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 253.88%#	
6) s 2-bromonaphthalene	10.46	201566	53.232 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 266.16%#	
11) s o-terphenyl	14.23	344079	48.153 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 240.76%#	
35) s 1-chlorooctadecane	15.79	209421	45.681 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 228.40%#	
Target Compounds			
2) naphthalene	7.29	320724	48.250 ppm
3) 2-methylnaphthalene	8.57	309637	48.160 ppm
5) acenaphthylene	10.22	324728	48.043 ppm
7) acenaphthene	10.58	337481	47.184 ppm
8) fluorene	11.53	322803	49.566 ppm
9) phenanthrene	13.29	312273	47.450 ppm
10) anthracene	13.37	325165	49.282 ppm
12) fluoranthene	15.53	333891	49.241 ppm
13) pyrene	15.92	336068	48.085 ppm
14) benzo(a)anthracene	18.24	329078	61.010 ppm
15) chrysene	18.32	334251	49.364 ppm
16) benzo(b)fluoranthene	20.18	328817	55.048 ppm
17) benzo(k)fluoranthene	20.23	335391	51.692 ppm
18) benzo(a)pyrene	20.68	320479	51.877 ppm
19) indeno(1,2,3-cd)pyrene	22.37	278360	54.150 ppm
20) dibenzo(ah)anthracene	22.44	282632	56.933 ppm
21) benzo(ghi)perylene	22.71	277511	50.127 ppm
25) h c-9	3.81	308915	48.696 ppm
26) h c-10	5.18	305943	48.228 ppm
27) naphthalene #2	7.50	301338	42.940 ppm
28) c-12	7.68	288091	45.414 ppm
29) 2-methylnaphthalene #2	8.77	288868	46.214 ppm
30) c-14	9.87	270375	42.621 ppm
31) c-16	11.80	263563	41.547 ppm
32) c-18	13.55	262893	41.441 ppm m
33) c-19	14.36	260251	48.811 ppm
34) c-20	15.14	260634	48.883 ppm
36) c-22	16.60	265611	49.816 ppm
37) c-24	17.95	262342	49.203 ppm
38) c-26	19.19	267048	50.086 ppm
39) c-28	20.35	262028	49.144 ppm
40) h c-30	21.45	259148	48.604 ppm
41) h c-36	24.33	196955	36.940 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37611.D EPH031110.M Fri Mar 12 13:48:55 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37611.D\FID1A.CH         Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37611.D\FID2B.CH
Acq On    : 3-11-10 04:53:04 PM                      Operator: KimD
Sample    : icv1915-50                               Inst    : GCBC
Misc      : op20829,gbc1915,11.12,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:50:47 2010  Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.19

10

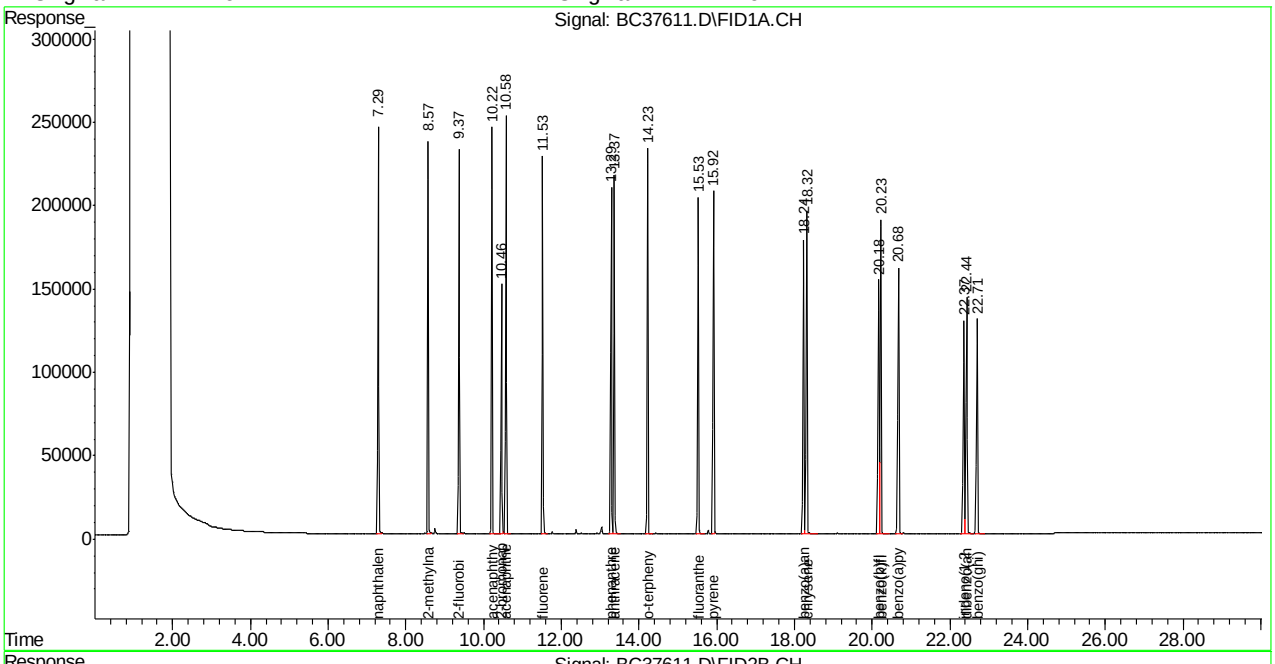
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37611.D  EPH031110.M      Fri Mar 12 13:48:56 2010      RPGEN1
```

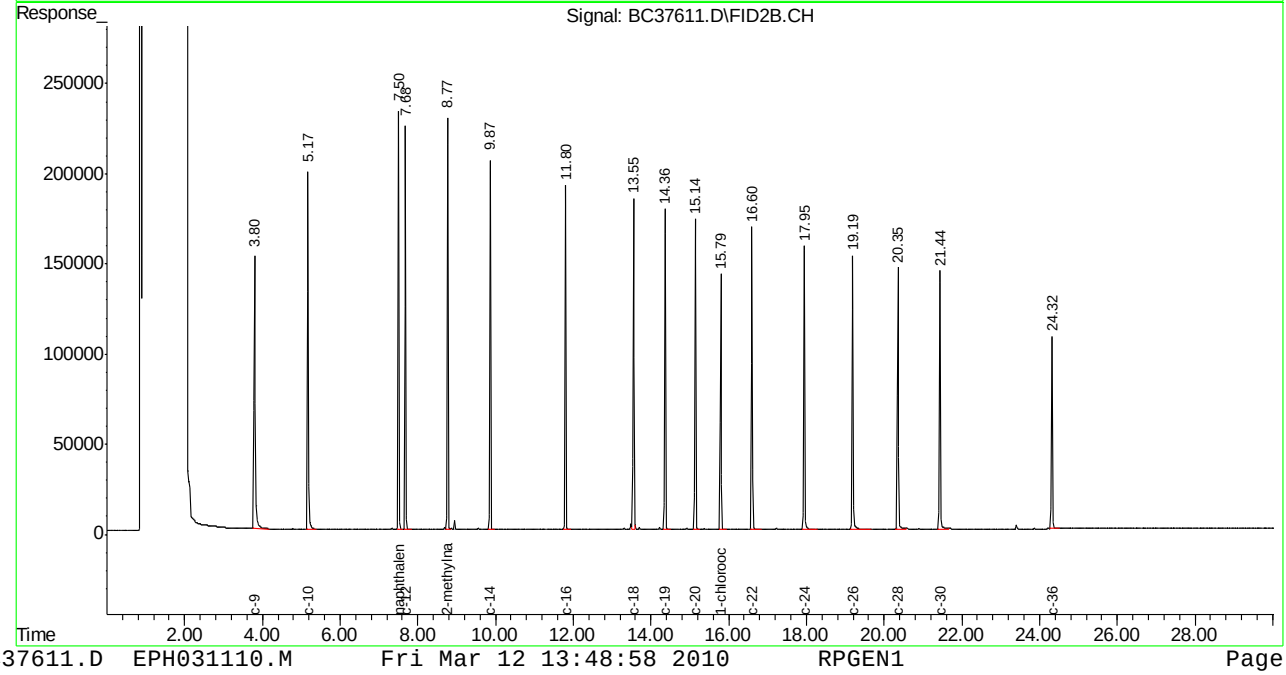
Quantitation Report (QT Reviewed)

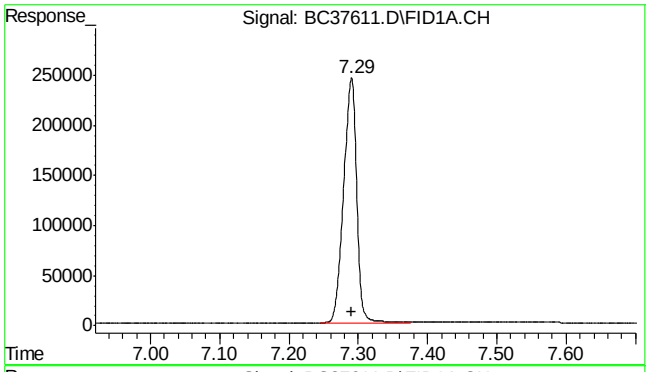
Signal #1 : C:\MSDCHEM\1\DATA\BC37611.D\FID1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\BC37611.D\FID2B.CH
Acq On : 3-11-10 04:53:04 PM Operator: KimD
Sample : icv1915-50 Inst : GCBC
Misc : op20829,gbc1915,11.12,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 8:52 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

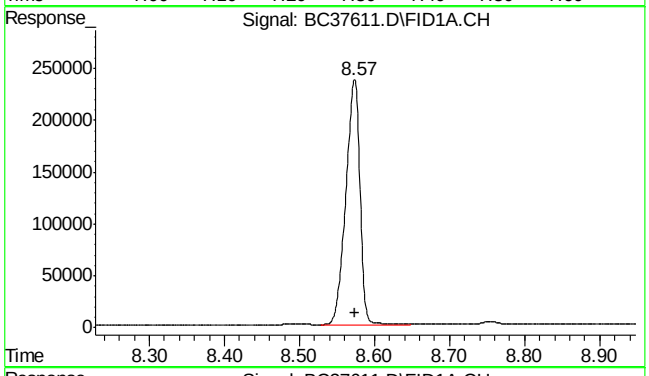






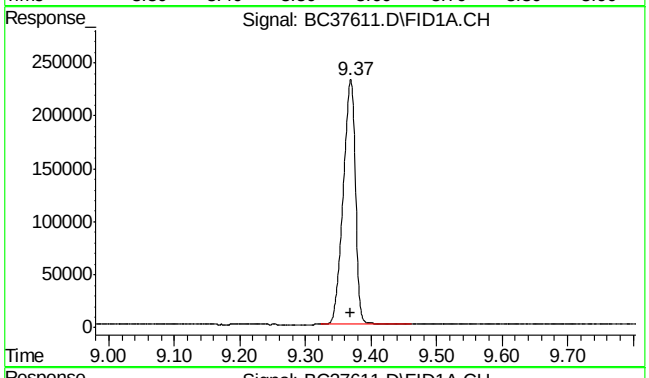
#2 naphthalene

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 320724
Conc: 48.25 ppm



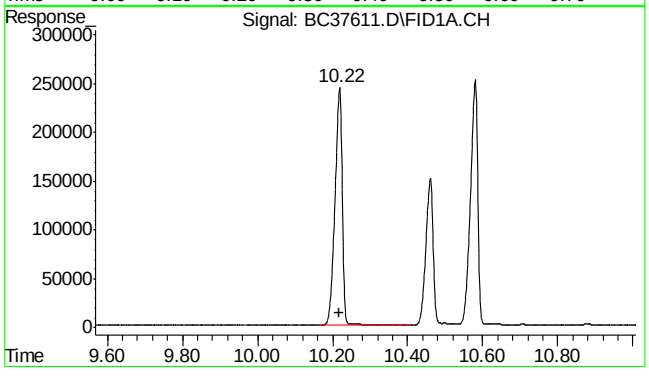
#3 2-methylnaphthalene

R.T.: 8.573 min
Delta R.T.: 0.000 min
Response: 309637
Conc: 48.16 ppm



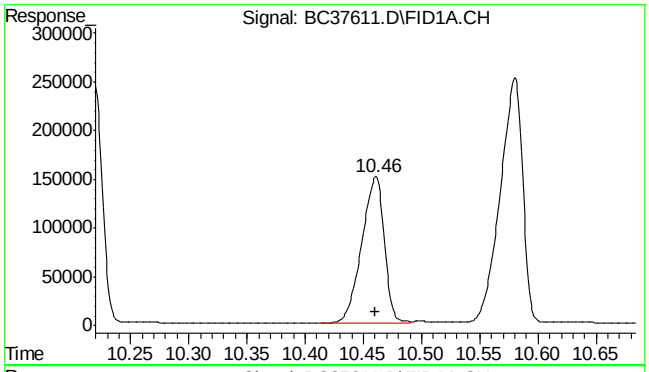
#4 2-fluorobiphenyl

R.T.: 9.368 min
Delta R.T.: 0.000 min
Response: 299635
Conc: 50.78 ppm



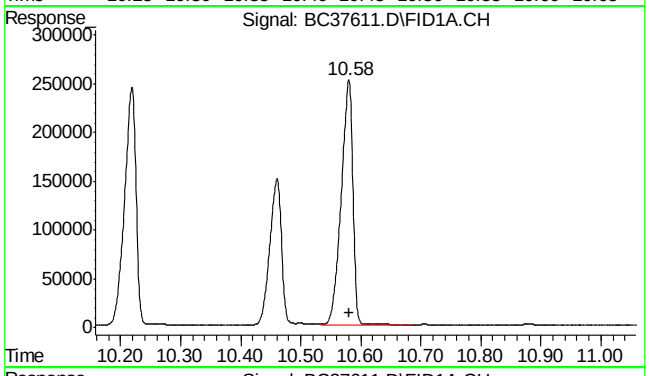
#5 acenaphthylene

R.T.: 10.219 min
Delta R.T.: 0.000 min
Response: 324728
Conc: 48.04 ppm



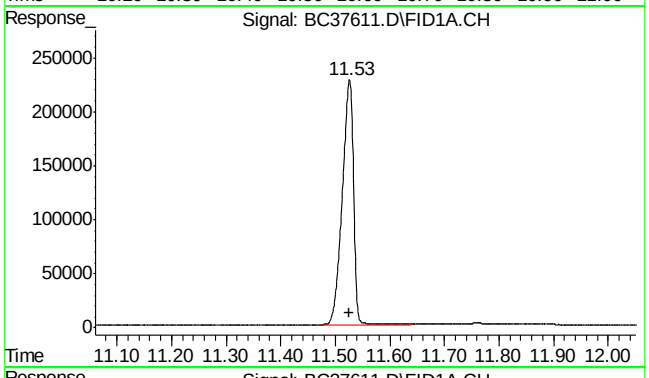
#6 2-bromonaphthalene

R.T.: 10.461 min
Delta R.T.: 0.000 min
Response: 201566
Conc: 53.23 ppm



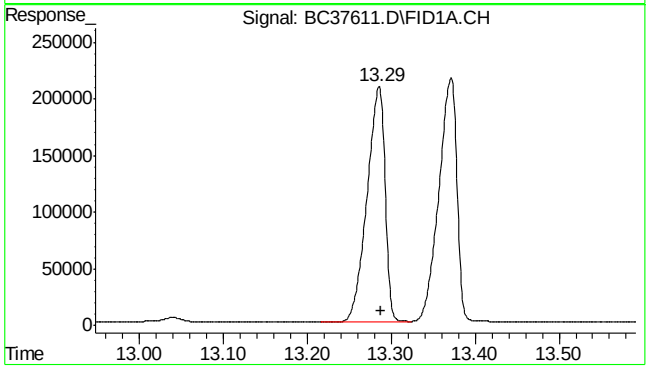
#7 acenaphthene

R.T.: 10.580 min
Delta R.T.: 0.000 min
Response: 337481
Conc: 47.18 ppm



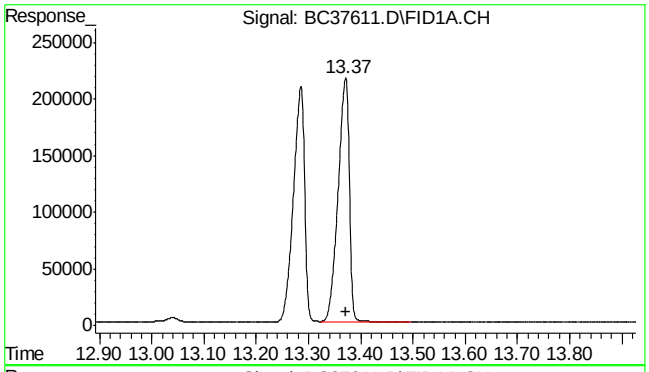
#8 fluorene

R.T.: 11.526 min
Delta R.T.: 0.000 min
Response: 322803
Conc: 49.57 ppm



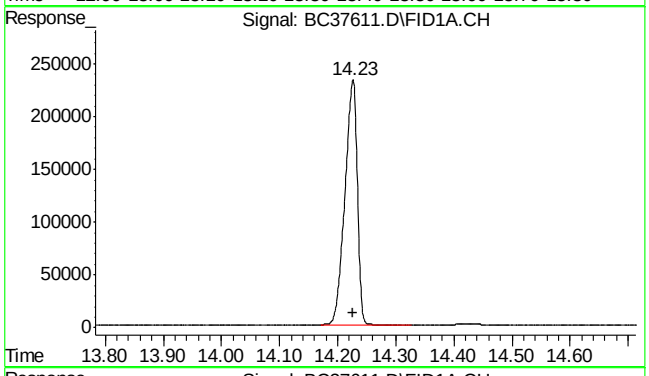
#9 phenanthrene

R.T.: 13.286 min
Delta R.T.: -0.001 min
Response: 312273
Conc: 47.45 ppm



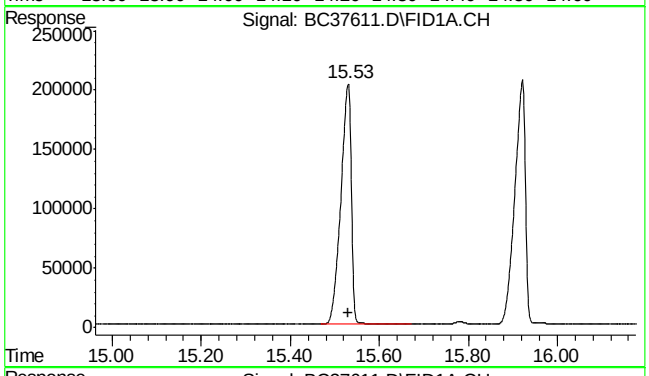
#10 anthracene

R.T.: 13.372 min
Delta R.T.: 0.000 min
Response: 325165
Conc: 49.28 ppm



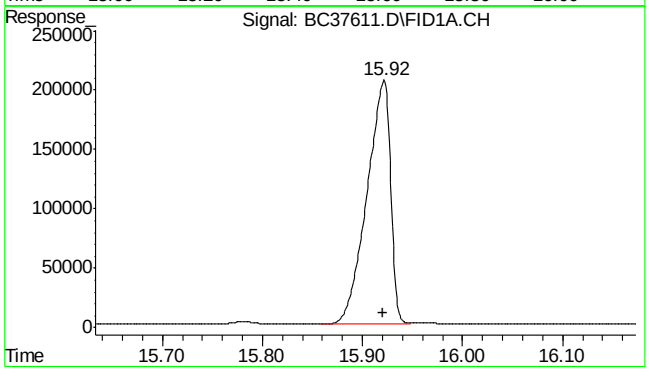
#11 o-terphenyl

R.T.: 14.227 min
Delta R.T.: 0.001 min
Response: 344079
Conc: 48.15 ppm



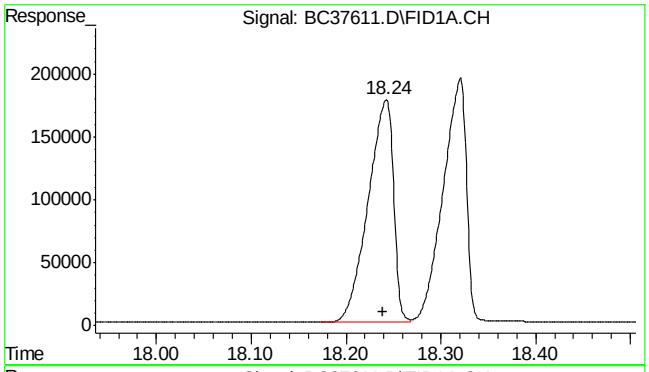
#12 fluoranthene

R.T.: 15.531 min
Delta R.T.: 0.000 min
Response: 333891
Conc: 49.24 ppm



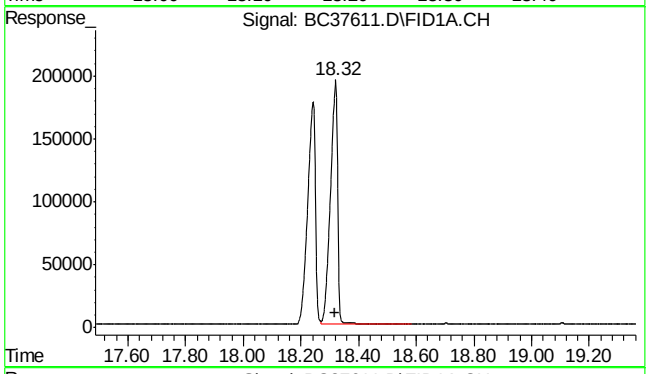
#13 pyrene

R.T.: 15.922 min
Delta R.T.: 0.000 min
Response: 336068
Conc: 48.08 ppm



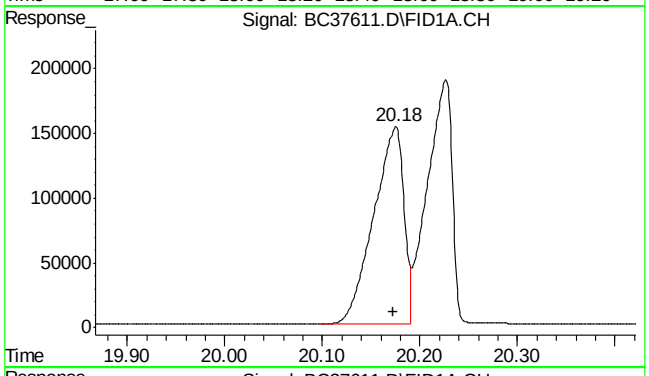
#14 benzo(a)anthracene

R.T.: 18.242 min
Delta R.T.: 0.003 min
Response: 329078
Conc: 61.01 ppm



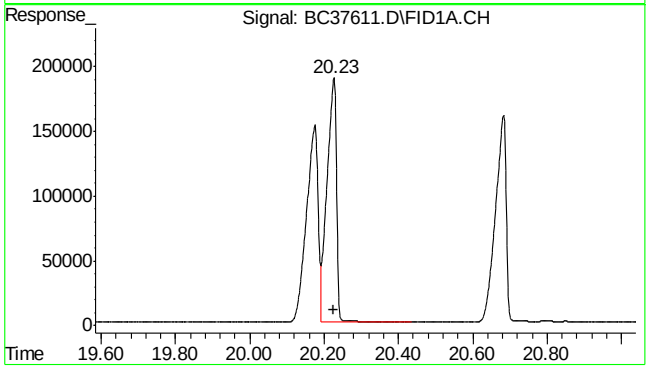
#15 chrysene

R.T.: 18.321 min
Delta R.T.: 0.001 min
Response: 334251
Conc: 49.36 ppm



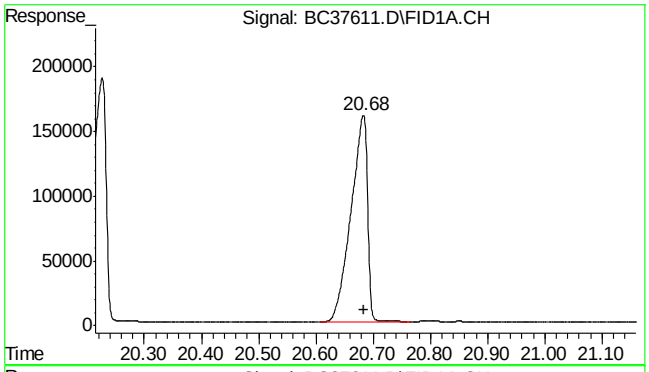
#16 benzo(b)fluoranthene

R.T.: 20.176 min
Delta R.T.: 0.003 min
Response: 328817
Conc: 55.05 ppm



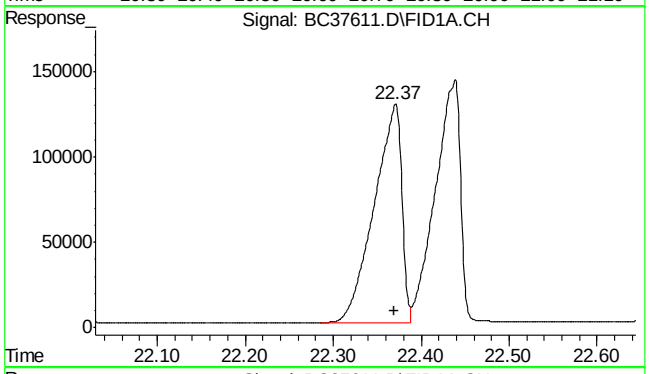
#17 benzo(k)fluoranthene

R.T.: 20.227 min
Delta R.T.: 0.000 min
Response: 335391
Conc: 51.69 ppm



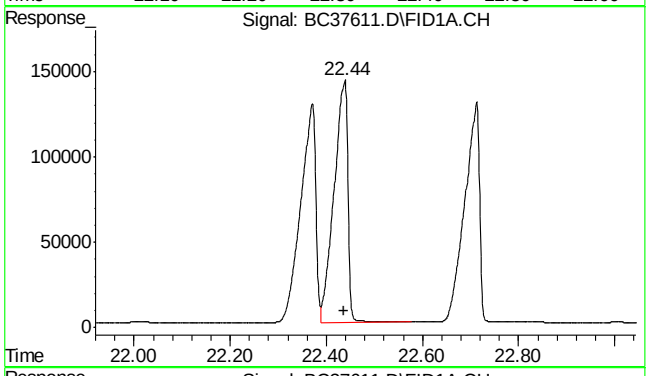
#18 benzo(a)pyrene

R.T.: 20.683 min
Delta R.T.: 0.000 min
Response: 320479
Conc: 51.88 ppm



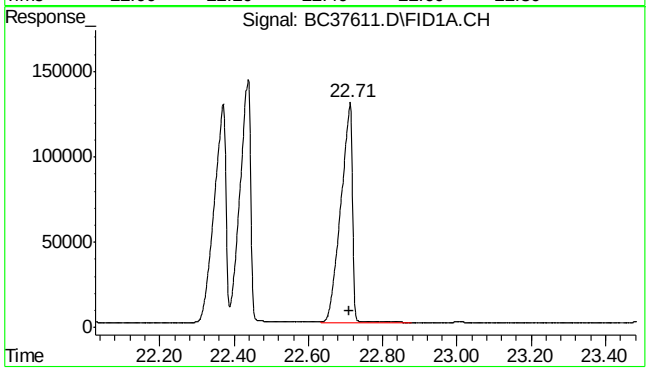
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.371 min
Delta R.T.: 0.000 min
Response: 278360
Conc: 54.15 ppm



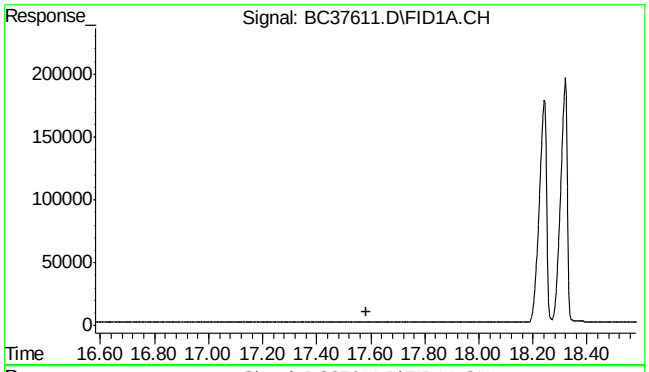
#20 dibenzo(ah)anthracene

R.T.: 22.439 min
Delta R.T.: 0.003 min
Response: 282632
Conc: 56.93 ppm



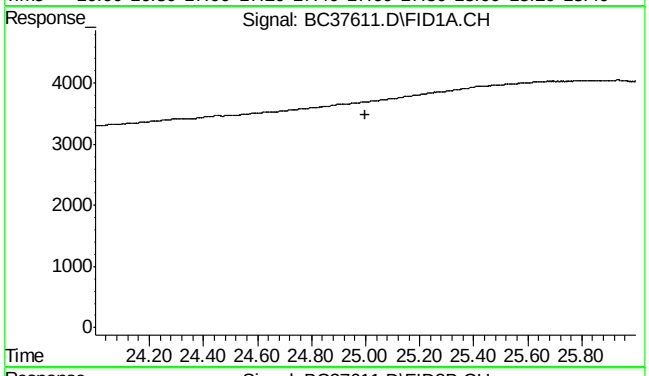
#21 benzo(ghi)perylene

R.T.: 22.713 min
Delta R.T.: 0.002 min
Response: 277511
Conc: 50.13 ppm



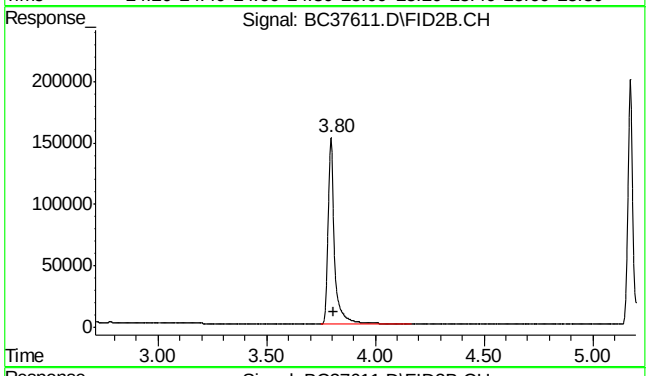
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



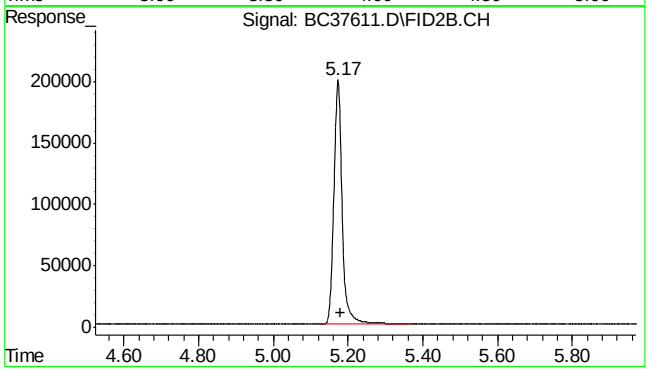
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



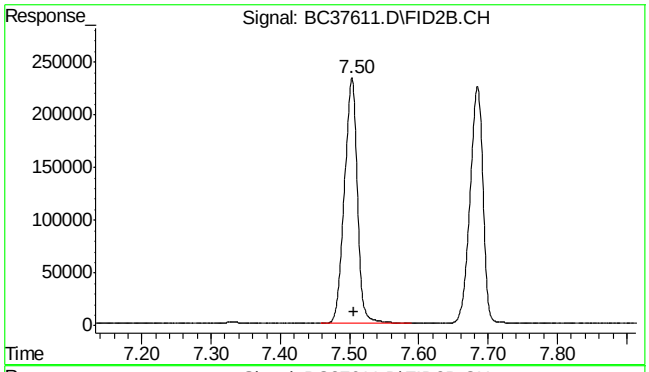
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 308915
Conc: 48.70 ppm m



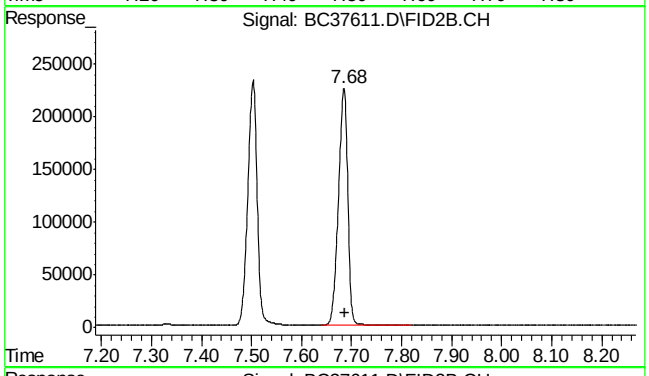
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 305943
Conc: 48.23 ppm m



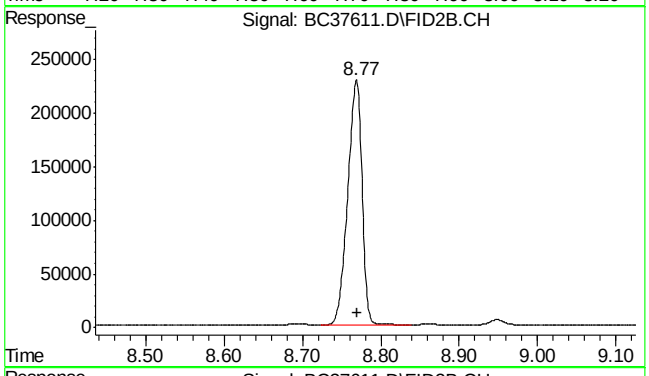
#27 naphthalene #2

R.T.: 7.503 min
Delta R.T.: -0.003 min
Response: 301338
Conc: 42.94 ppm



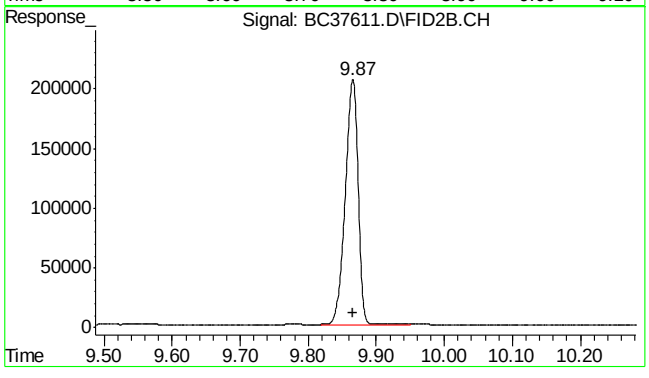
#28 c-12

R.T.: 7.685 min
Delta R.T.: -0.002 min
Response: 288091
Conc: 45.41 ppm



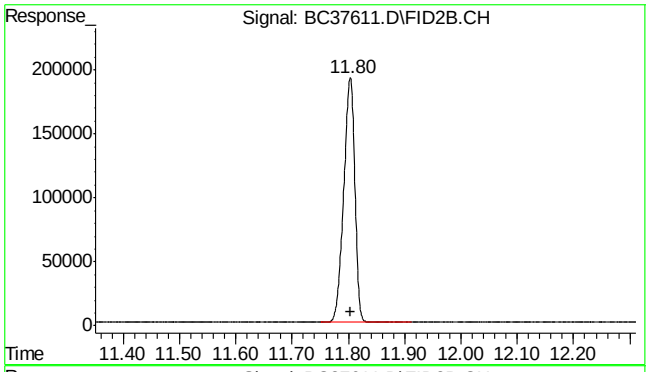
#29 2-methylnaphthalene #2

R.T.: 8.769 min
Delta R.T.: -0.001 min
Response: 288868
Conc: 46.21 ppm



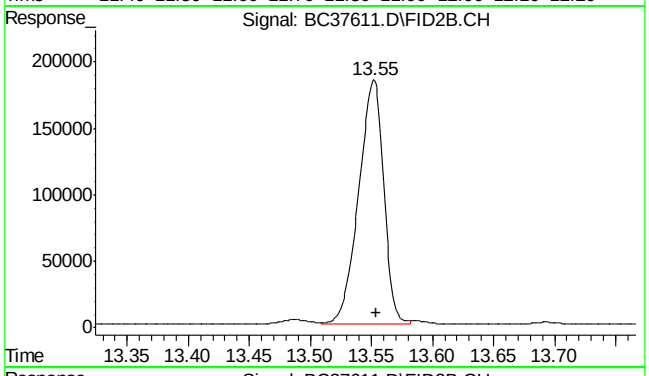
#30 c-14

R.T.: 9.866 min
Delta R.T.: 0.000 min
Response: 270375
Conc: 42.62 ppm



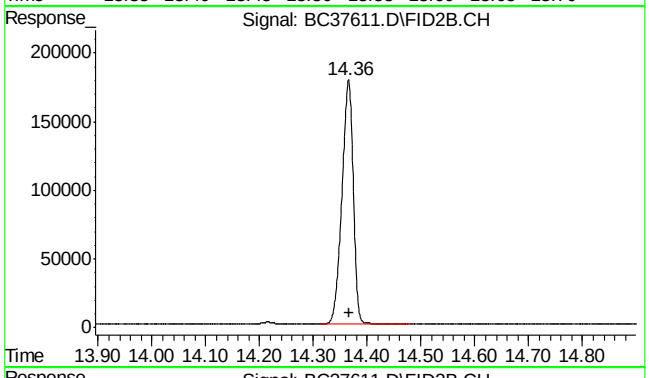
#31 c-16

R.T.: 11.803 min
Delta R.T.: -0.001 min
Response: 263563
Conc: 41.55 ppm



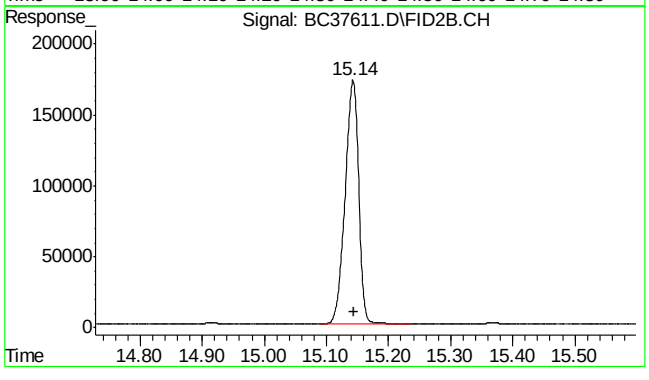
#32 c-18

R.T.: 13.552 min
Delta R.T.: -0.002 min
Response: 262893
Conc: 41.44 ppm m



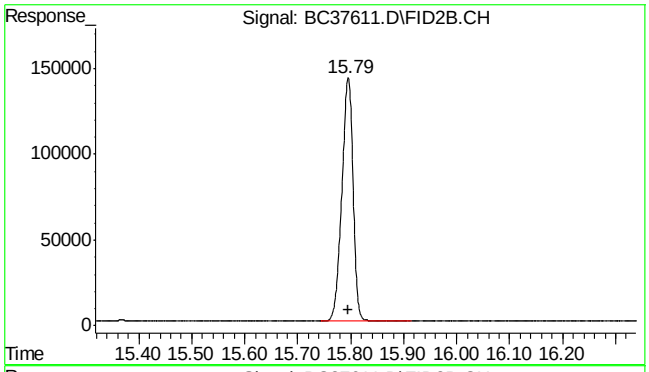
#33 c-19

R.T.: 14.365 min
Delta R.T.: -0.002 min
Response: 260251
Conc: 48.81 ppm



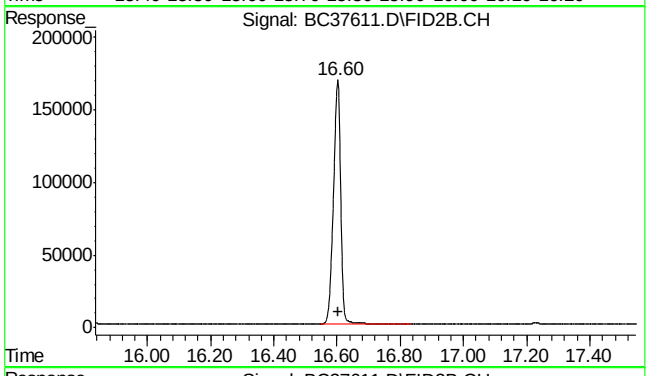
#34 c-20

R.T.: 15.142 min
Delta R.T.: -0.001 min
Response: 260634
Conc: 48.88 ppm



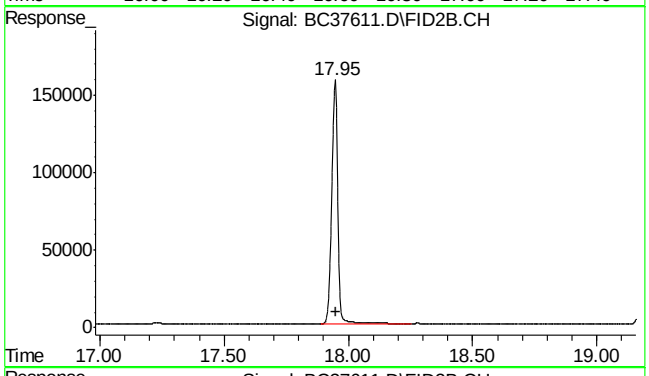
#35 1-chlorooctadecane

R.T.: 15.795 min
Delta R.T.: -0.001 min
Response: 209421
Conc: 45.68 ppm



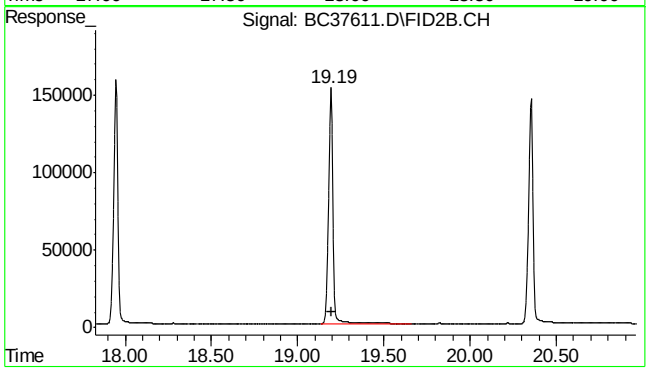
#36 c-22

R.T.: 16.602 min
Delta R.T.: 0.000 min
Response: 265611
Conc: 49.82 ppm



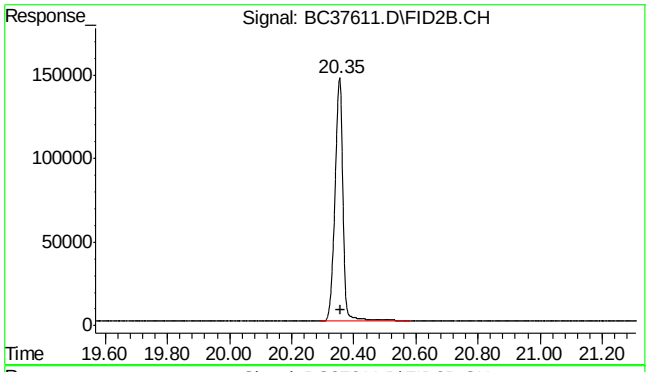
#37 c-24

R.T.: 17.947 min
Delta R.T.: -0.001 min
Response: 262342
Conc: 49.20 ppm



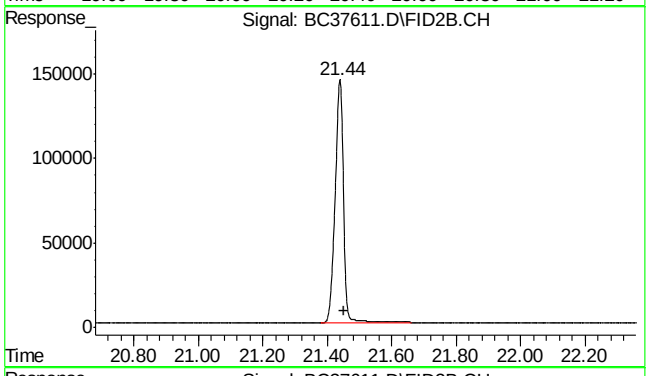
#38 c-26

R.T.: 19.193 min
Delta R.T.: -0.002 min
Response: 267048
Conc: 50.09 ppm



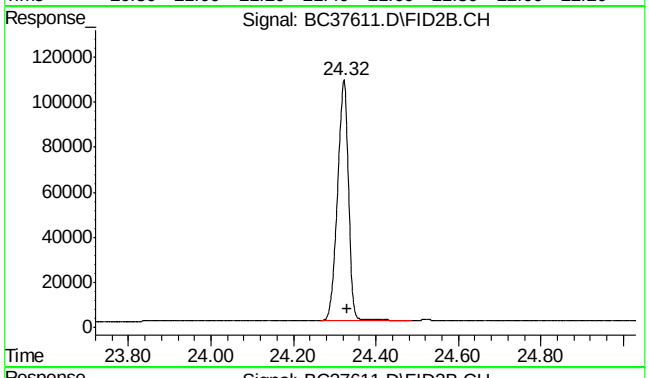
#39 c-28

R.T.: 20.355 min
Delta R.T.: -0.001 min
Response: 262028
Conc: 49.14 ppm



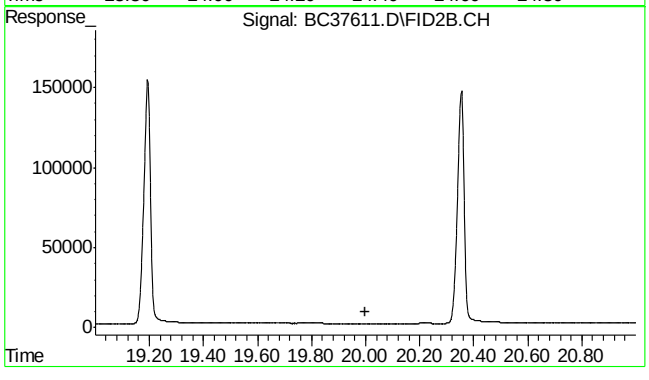
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 259148
Conc: 48.60 ppm m



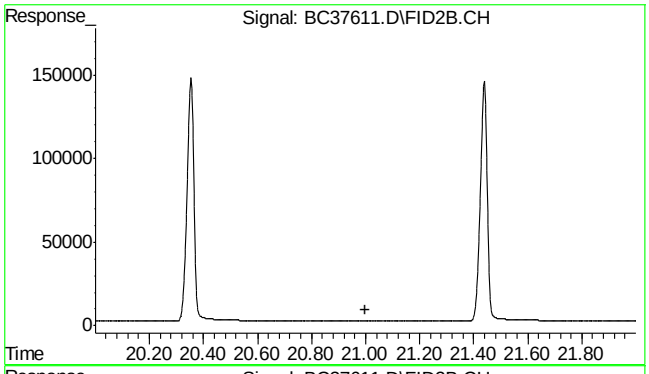
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 196955
Conc: 36.94 ppm m



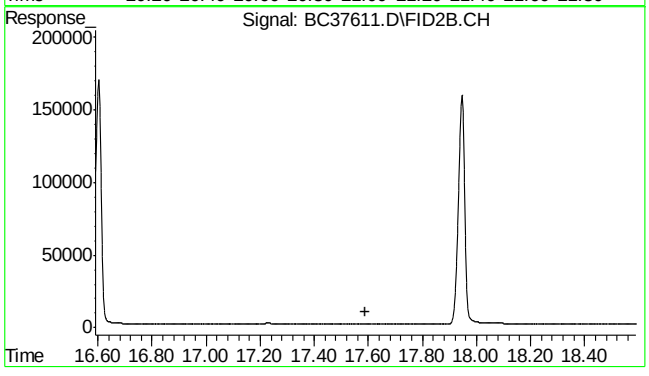
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

R.T.: 0.000 min
Exp R.T. : 21.000 min
Response: 0
Conc: N.D.



#44 BHT

R.T.: 0.000 min
Exp R.T. : 17.590 min
Response: 0
Conc: N.D.

10.5.19 10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37622.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37622.D\FID2B.CH
Acq On : 12 Mar 2010 12:06 am Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20804,gbc1915,11.45,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:56:17 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	293478	49.734 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 248.67%#	
6) s 2-bromonaphthalene	10.46	198105	52.318 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 261.59%#	
11) s o-terphenyl	14.22	348956	48.835 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 244.17%#	
35) s 1-chlorooctadecane	15.80	253013	55.190 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 275.95%#	
Target Compounds			
2) naphthalene	7.29	335185	50.426 ppm
3) 2-methylnaphthalene	8.57	329005	51.172 ppm
5) acenaphthylene	10.22	333942	49.407 ppm
7) acenaphthene	10.58	346715	48.475 ppm
8) fluorene	11.53	333302	51.178 ppm
9) phenanthrene	13.29	338849	51.488 ppm
10) anthracene	13.37	333889	50.605 ppm
12) fluoranthene	15.53	341118	50.307 ppm
13) pyrene	15.92	341465	48.857 ppm
14) benzo(a)anthracene	18.24	318702	59.086 ppm
15) chrysene	18.32	340867	50.341 ppm
16) benzo(b)fluoranthene	20.17	325212	54.444 ppm
17) benzo(k)fluoranthene	20.23	324814	50.062 ppm
18) benzo(a)pyrene	20.68	328803	53.224 ppm
19) indeno(1,2,3-cd)pyrene	22.37	285168	55.474 ppm
20) dibenzo(ah)anthracene	22.44	285769	57.565 ppm
21) benzo(ghi)perylene	22.71	272166	49.162 ppm
25) h c-9	3.81	322651	50.861 ppm
26) h c-10	5.18	325808	51.359 ppm
27) naphthalene #2	7.51	338749	48.271 ppm
28) c-12	7.69	338278	53.325 ppm
29) 2-methylnaphthalene #2	8.77	326420	52.222 ppm
30) c-14	9.87	311399	49.088 ppm
31) c-16	11.80	311730	49.140 ppm
32) c-18	13.55	315984	49.810 ppm
33) c-19	14.37	313511	58.800 ppm
34) c-20	15.14	312189	58.552 ppm
36) c-22	16.60	315984	59.264 ppm
37) c-24	17.95	316780	59.413 ppm
38) c-26	19.19	313074	58.718 ppm
39) c-28	20.36	313326	58.766 ppm
40) h c-30	21.45	314068	58.905 ppm
41) h c-36	24.33	251811	47.228 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37622.D EPH031110.M Fri Mar 12 11:04:06 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37622.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37622.D\FID2B.CH
Acq On    : 12 Mar 2010  12:06 am                    Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20804,gbc1915,11.45,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 12 08:56:17 2010  Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.20

10

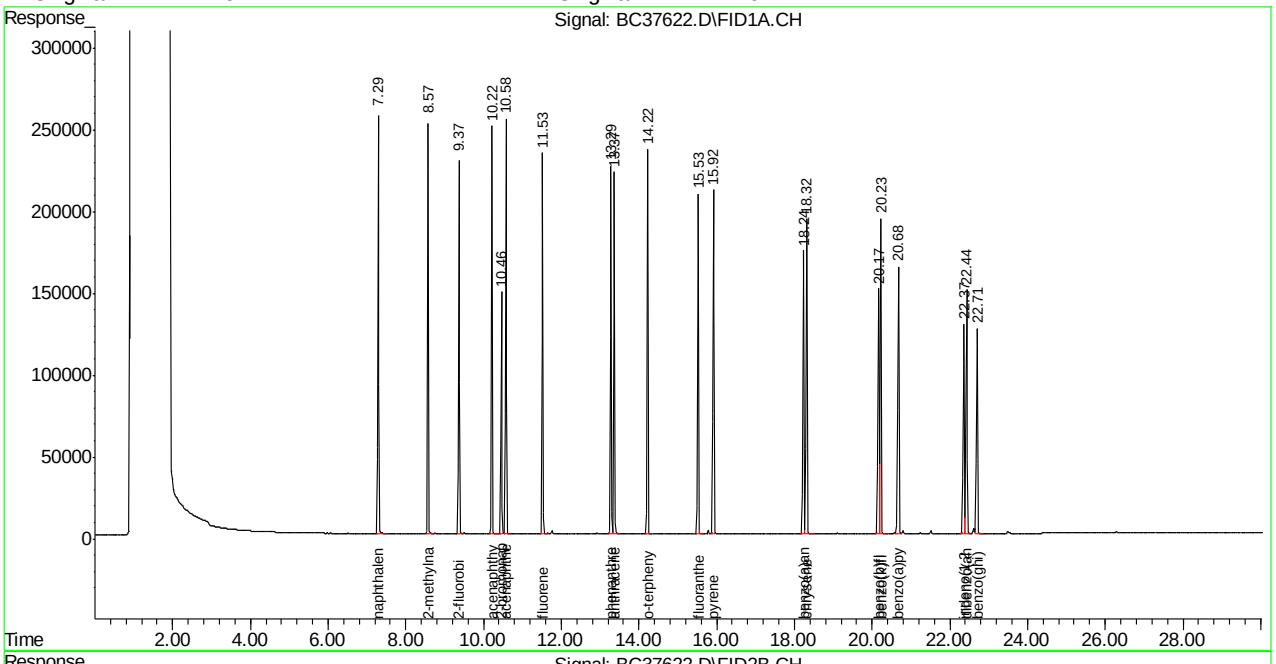
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37622.D  EPH031110.M      Fri Mar 12 11:04:06 2010      RPGEN1
```

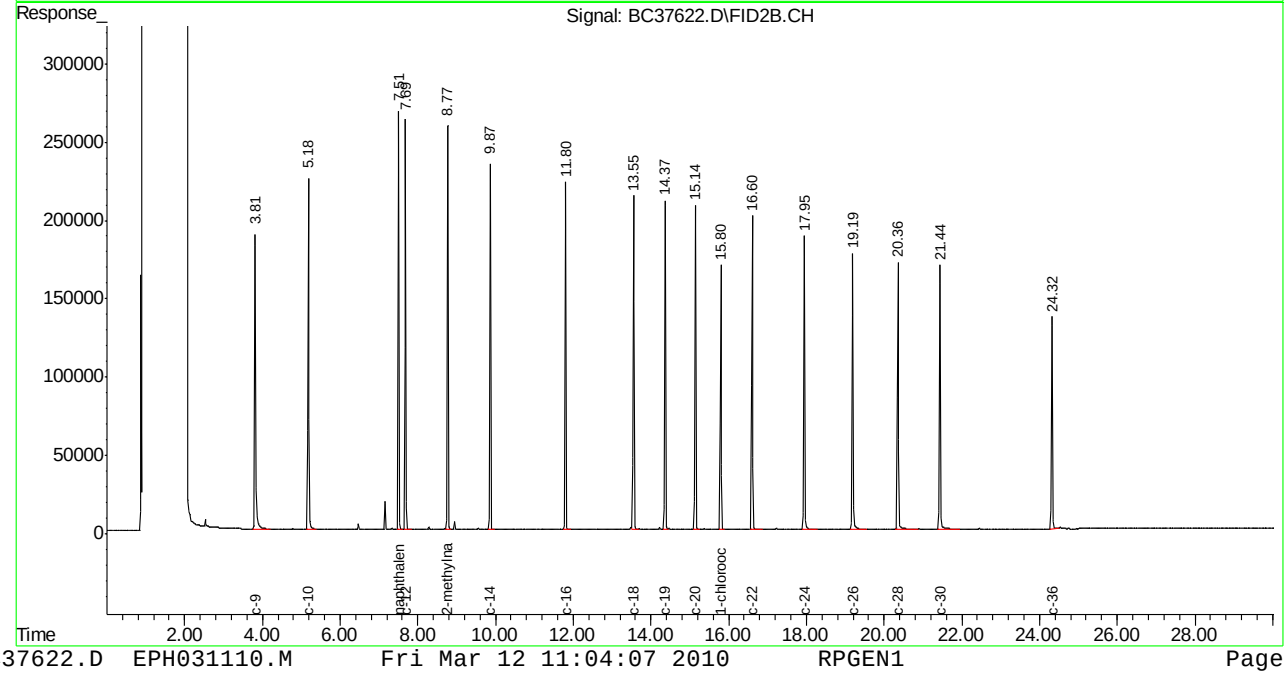
Quantitation Report (QT Reviewed)

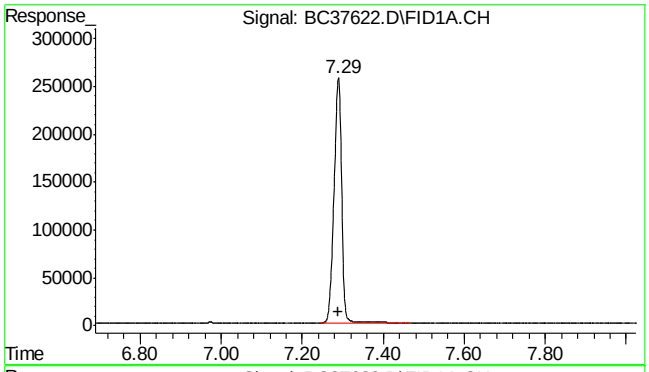
Signal #1 : C:\MSDCHEM\1\DATA\BC37622.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37622.D\FID2B.CH
Acq On : 12 Mar 2010 12:06 am Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20804,gbc1915,11.45,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 12 9:50 2010 Quant Results File: EPH031110.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031110.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

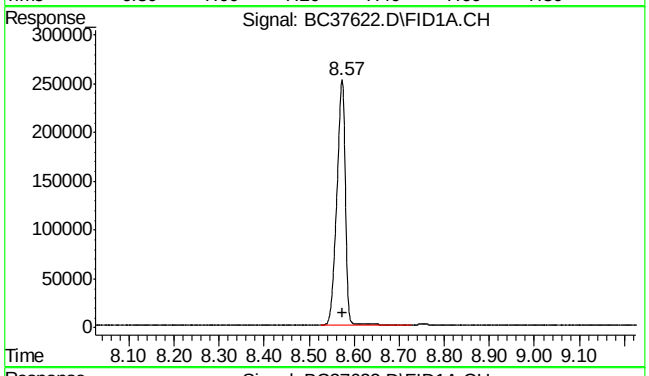






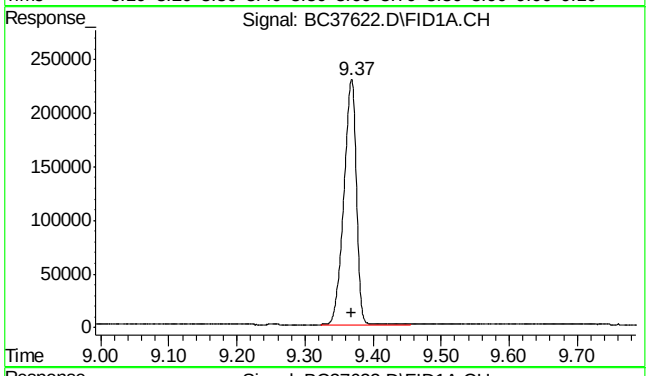
#2 naphthalene

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 335185
Conc: 50.43 ppm



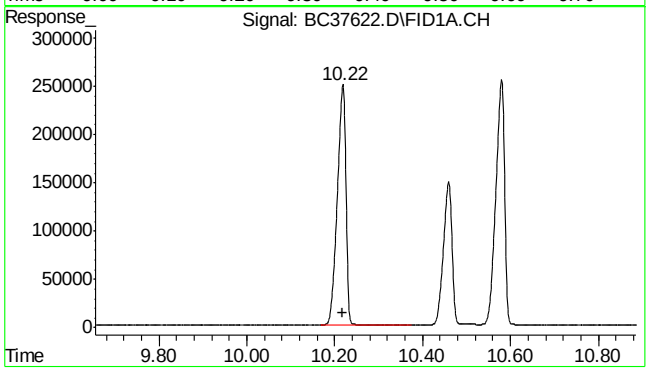
#3 2-methylnaphthalene

R.T.: 8.573 min
Delta R.T.: 0.000 min
Response: 329005
Conc: 51.17 ppm



#4 2-fluorobiphenyl

R.T.: 9.368 min
Delta R.T.: 0.000 min
Response: 293478
Conc: 49.73 ppm



#5 acenaphthylene

R.T.: 10.219 min
Delta R.T.: 0.000 min
Response: 333942
Conc: 49.41 ppm

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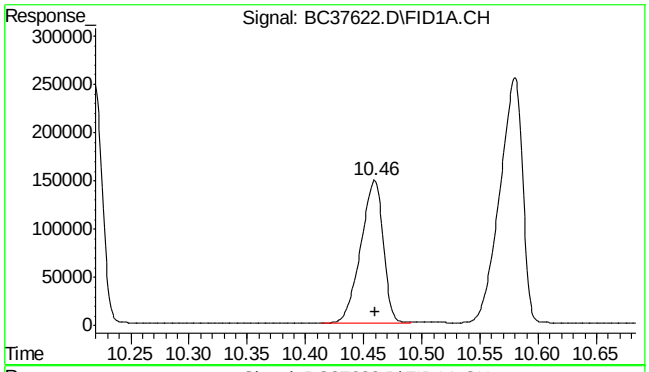
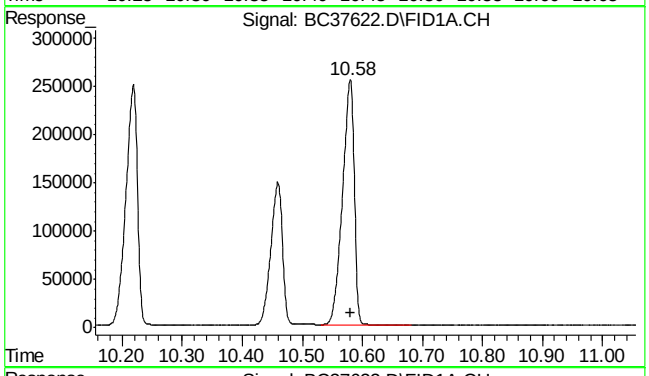
F71731



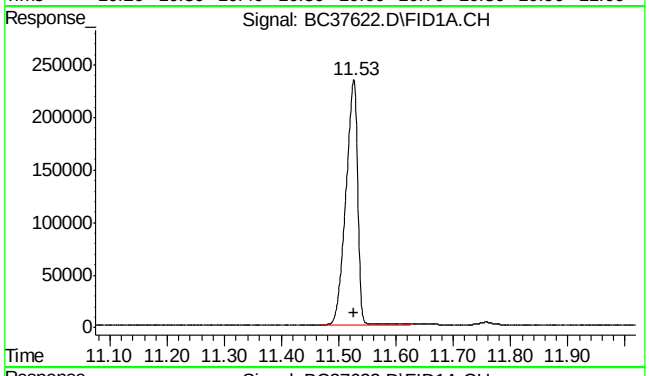
#6 2-bromonaphthalene

R.T.: 10.459 min
Delta R.T.: -0.001 min
Response: 198105
Conc: 52.32 ppm



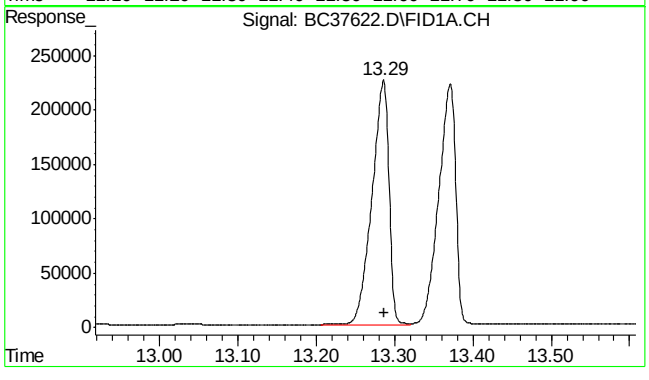
#7 acenaphthene

R.T.: 10.580 min
Delta R.T.: 0.000 min
Response: 346715
Conc: 48.48 ppm



#8 fluorene

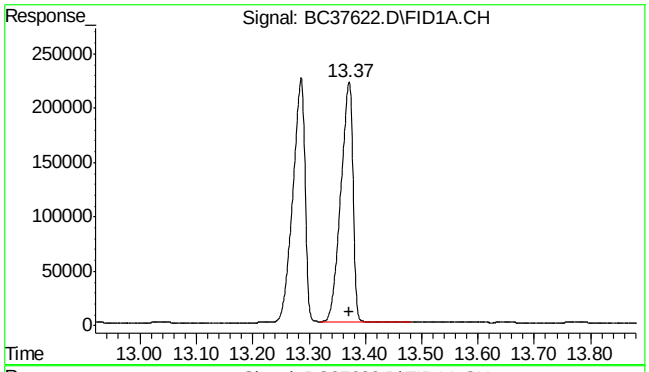
R.T.: 11.525 min
Delta R.T.: 0.000 min
Response: 333302
Conc: 51.18 ppm



#9 phenanthrene

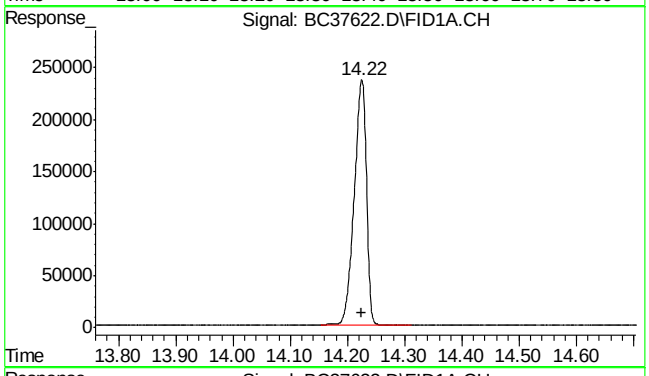
R.T.: 13.285 min
Delta R.T.: -0.001 min
Response: 338849
Conc: 51.49 ppm

ACCUTEST Laboratories
F71731



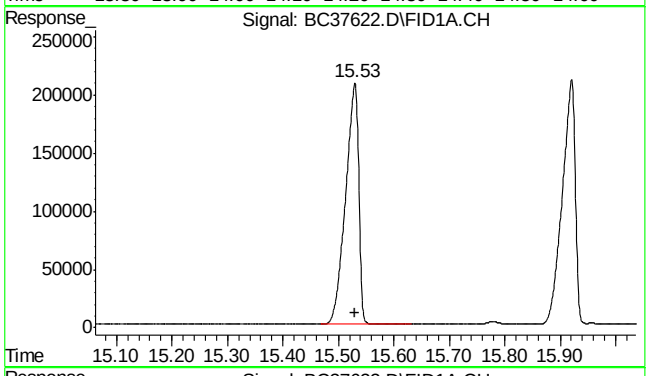
#10 anthracene

R.T.: 13.370 min
Delta R.T.: -0.001 min
Response: 333889
Conc: 50.60 ppm



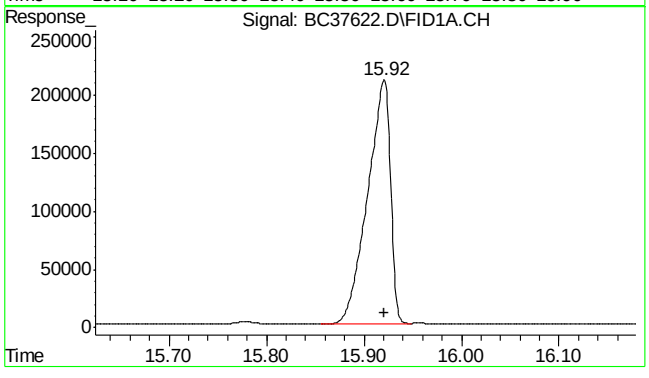
#11 o-terphenyl

R.T.: 14.225 min
Delta R.T.: 0.000 min
Response: 348956
Conc: 48.84 ppm



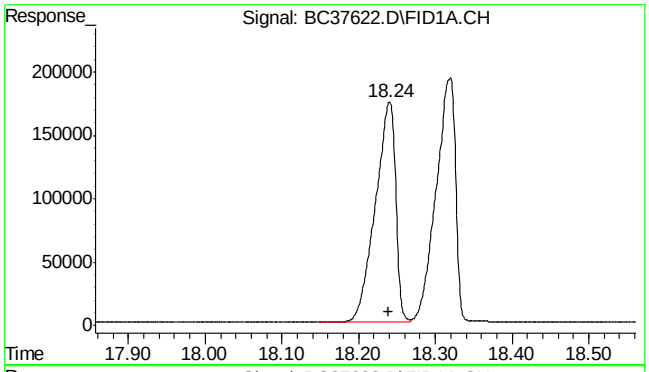
#12 fluoranthene

R.T.: 15.530 min
Delta R.T.: 0.000 min
Response: 341118
Conc: 50.31 ppm



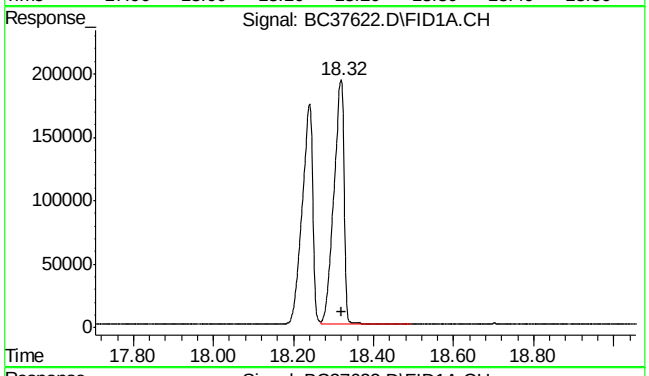
#13 pyrene

R.T.: 15.920 min
Delta R.T.: 0.000 min
Response: 341465
Conc: 48.86 ppm



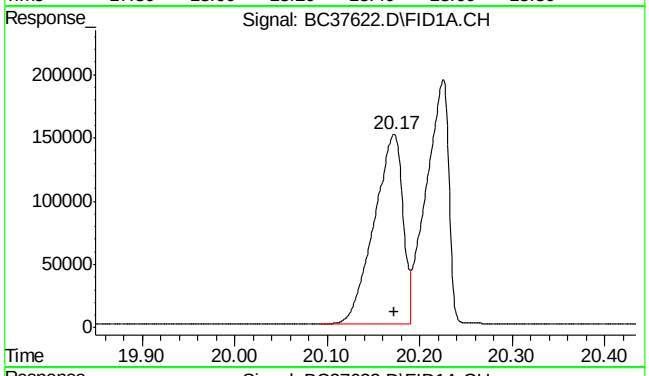
#14 benzo(a)anthracene

R.T.: 18.240 min
Delta R.T.: 0.000 min
Response: 318702
Conc: 59.09 ppm



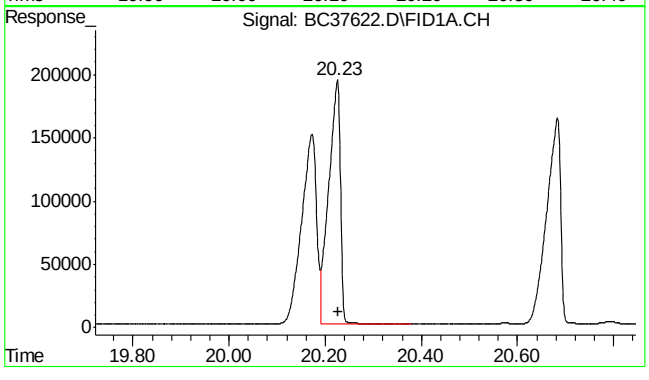
#15 chrysene

R.T.: 18.320 min
Delta R.T.: 0.000 min
Response: 340867
Conc: 50.34 ppm



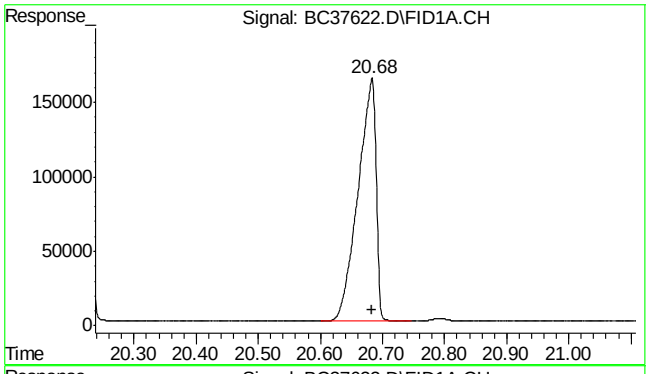
#16 benzo(b)fluoranthene

R.T.: 20.172 min
Delta R.T.: 0.000 min
Response: 325212
Conc: 54.44 ppm



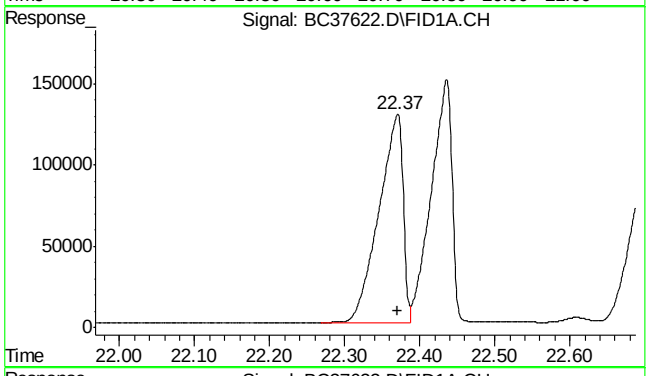
#17 benzo(k)fluoranthene

R.T.: 20.225 min
Delta R.T.: 0.000 min
Response: 324814
Conc: 50.06 ppm



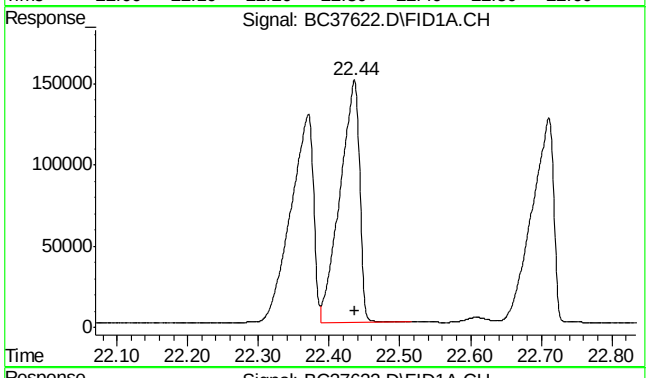
#18 benzo(a)pyrene

R.T.: 20.683 min
Delta R.T.: 0.000 min
Response: 328803
Conc: 53.22 ppm



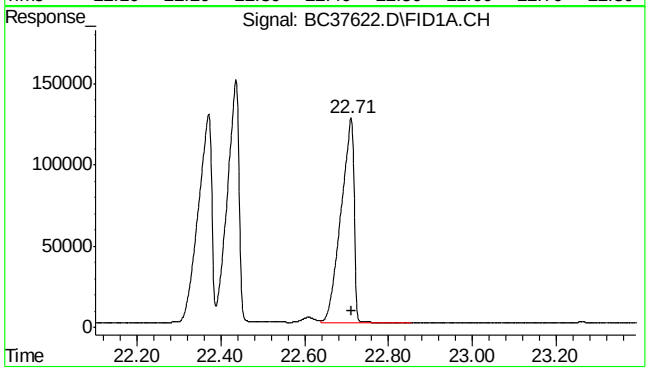
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.370 min
Delta R.T.: 0.000 min
Response: 285168
Conc: 55.47 ppm



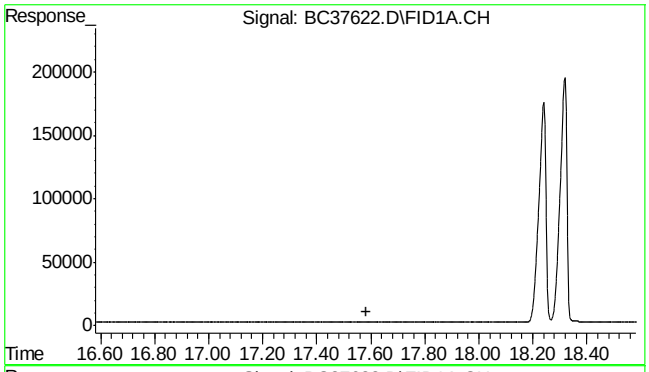
#20 dibenzo(ah)anthracene

R.T.: 22.435 min
Delta R.T.: 0.000 min
Response: 285769
Conc: 57.57 ppm



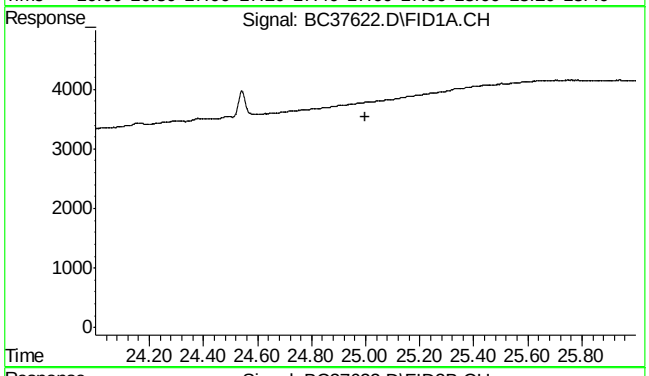
#21 benzo(ghi)perylene

R.T.: 22.710 min
Delta R.T.: 0.000 min
Response: 272166
Conc: 49.16 ppm



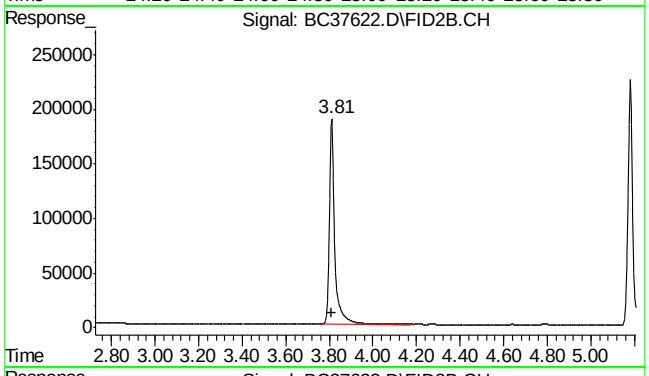
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



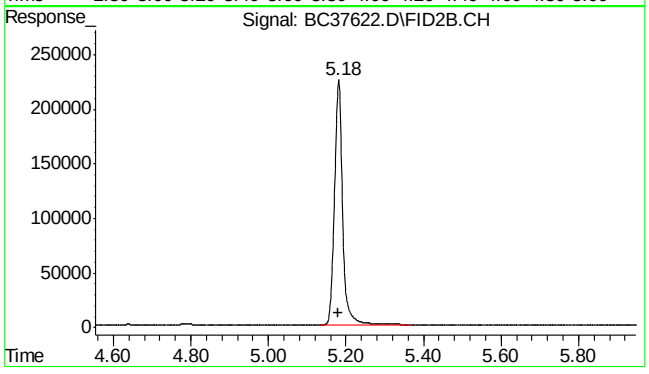
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



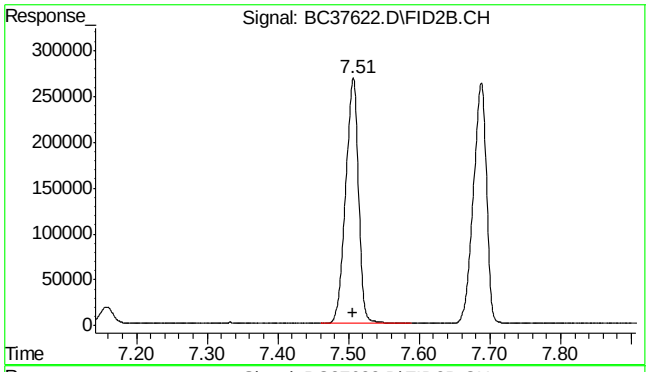
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 322651
Conc: 50.86 ppm m



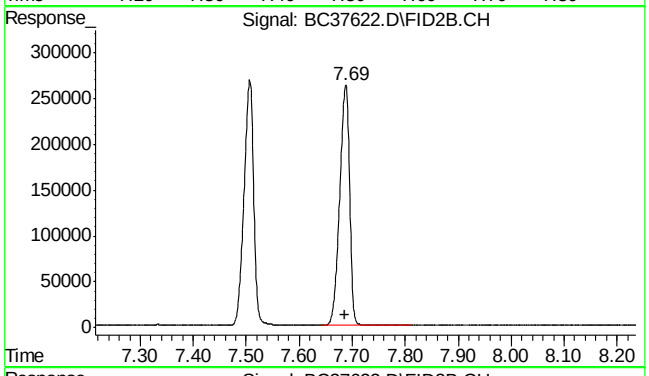
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 325808
Conc: 51.36 ppm m



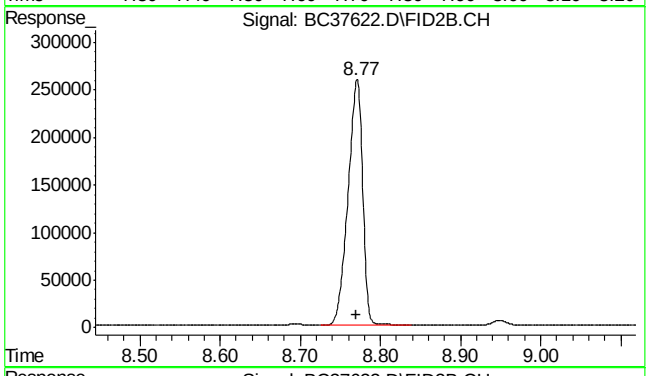
#27 naphthalene #2

R.T.: 7.506 min
Delta R.T.: 0.000 min
Response: 338749
Conc: 48.27 ppm



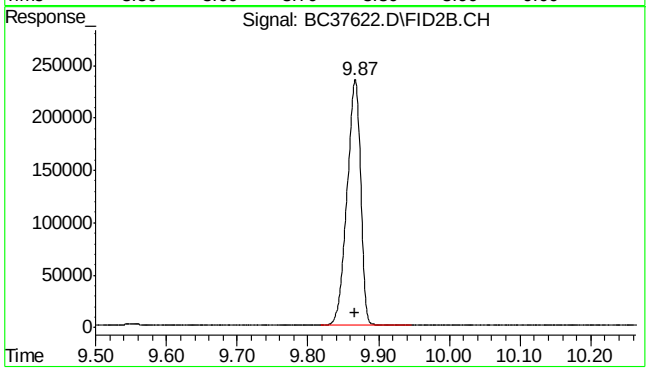
#28 c-12

R.T.: 7.688 min
Delta R.T.: 0.001 min
Response: 338278
Conc: 53.32 ppm



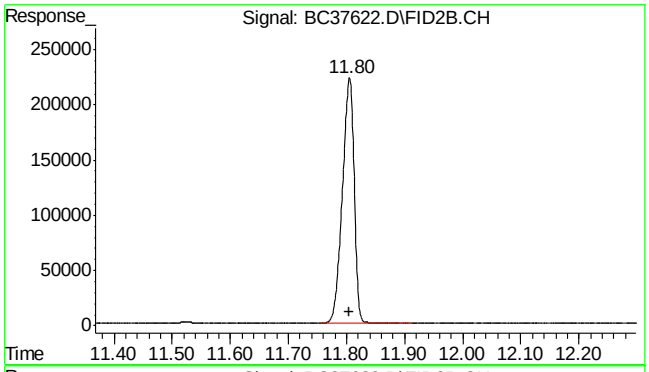
#29 2-methylnaphthalene #2

R.T.: 8.770 min
Delta R.T.: 0.000 min
Response: 326420
Conc: 52.22 ppm



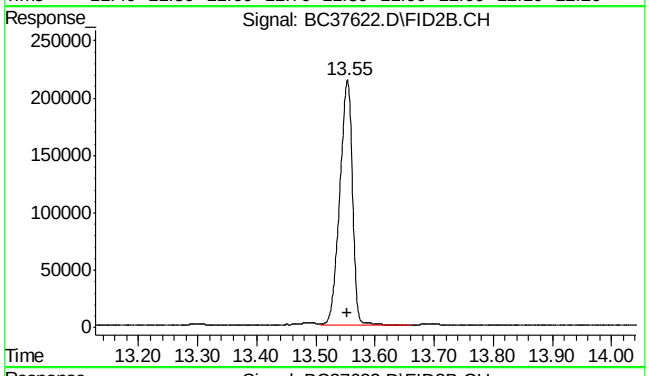
#30 c-14

R.T.: 9.867 min
Delta R.T.: 0.001 min
Response: 311399
Conc: 49.09 ppm



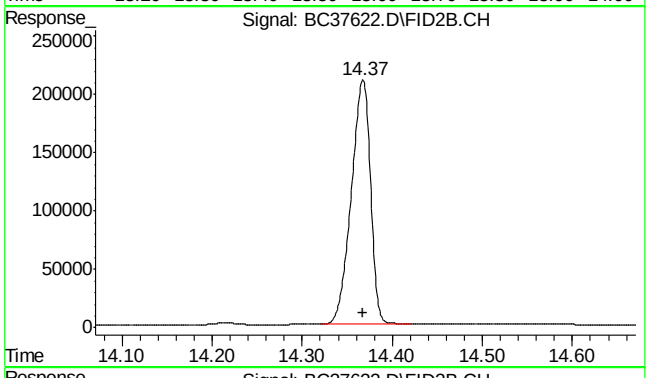
#31 c-16

R.T.: 11.805 min
Delta R.T.: 0.000 min
Response: 311730
Conc: 49.14 ppm



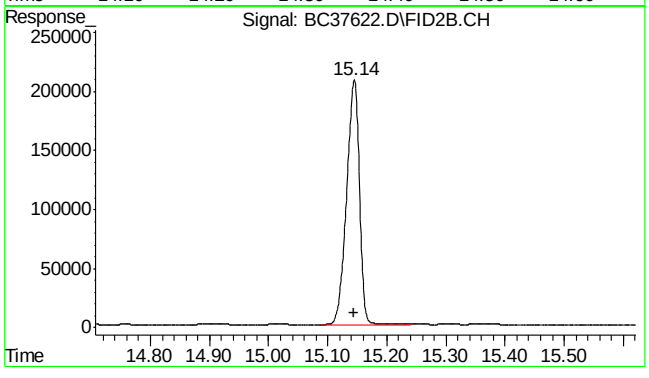
#32 c-18

R.T.: 13.553 min
Delta R.T.: 0.000 min
Response: 315984
Conc: 49.81 ppm



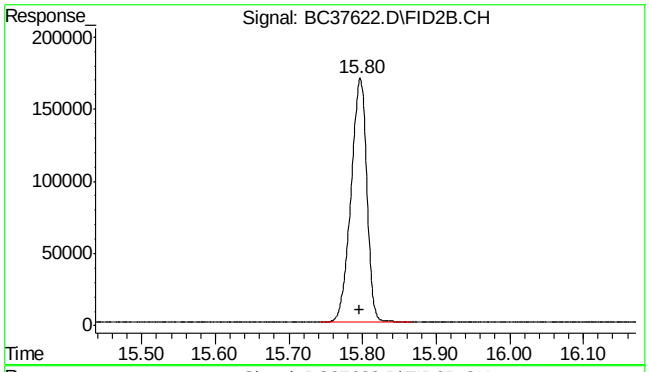
#33 c-19

R.T.: 14.367 min
Delta R.T.: 0.000 min
Response: 313511
Conc: 58.80 ppm



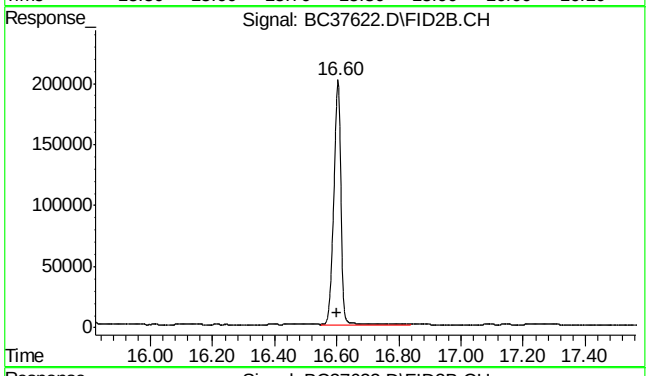
#34 c-20

R.T.: 15.145 min
Delta R.T.: 0.001 min
Response: 312189
Conc: 58.55 ppm



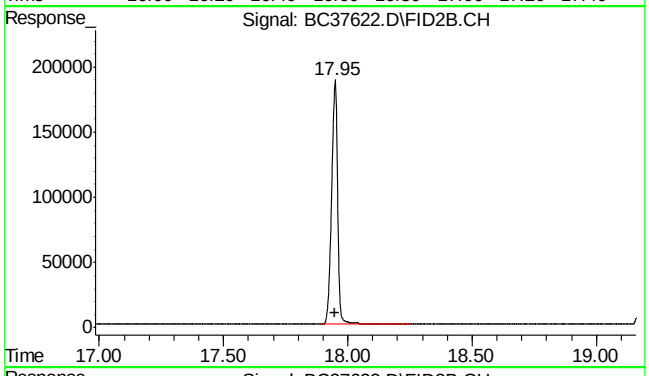
#35 1-chlorooctadecane

R.T.: 15.796 min
Delta R.T.: 0.000 min
Response: 253013
Conc: 55.19 ppm



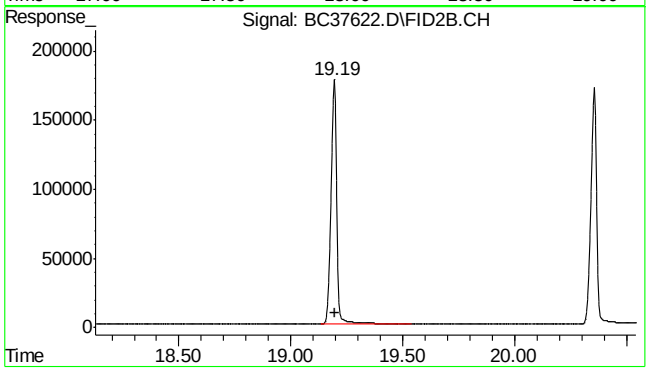
#36 c-22

R.T.: 16.604 min
Delta R.T.: 0.001 min
Response: 315984
Conc: 59.26 ppm



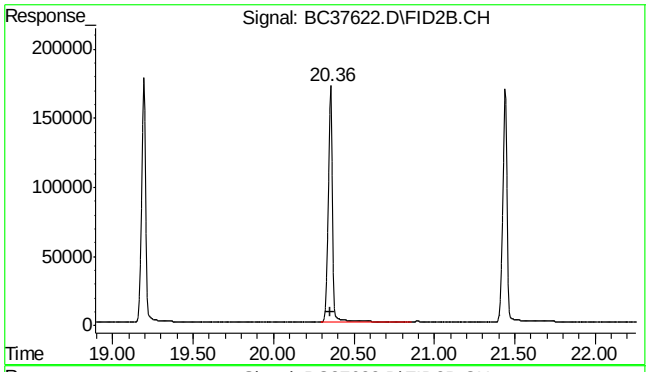
#37 c-24

R.T.: 17.949 min
Delta R.T.: 0.000 min
Response: 316780
Conc: 59.41 ppm



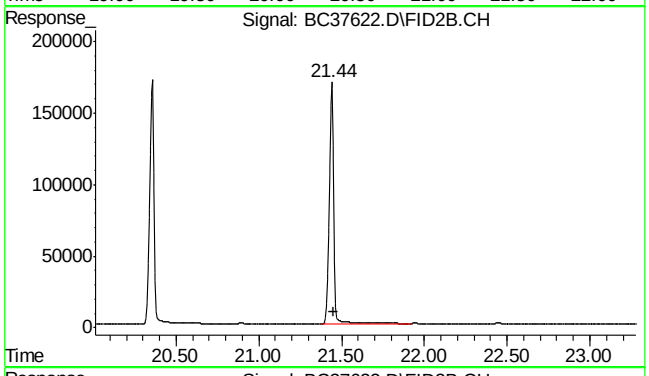
#38 c-26

R.T.: 19.195 min
Delta R.T.: 0.000 min
Response: 313074
Conc: 58.72 ppm



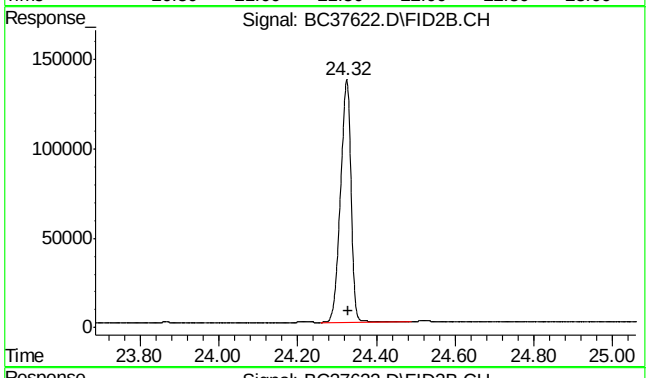
#39 c-28

R.T.: 20.355 min
Delta R.T.: 0.000 min
Response: 313326
Conc: 58.77 ppm



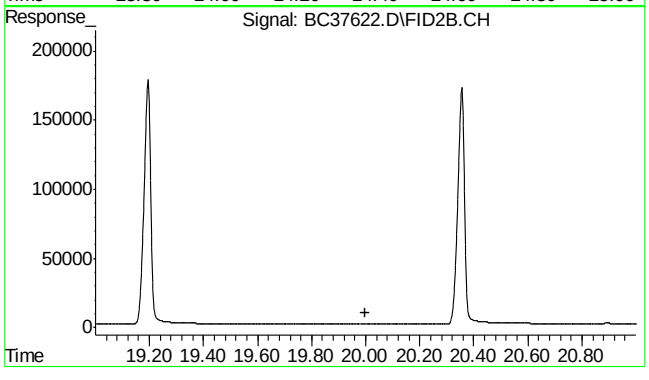
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 314068
Conc: 58.90 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 251811
Conc: 47.23 ppm m

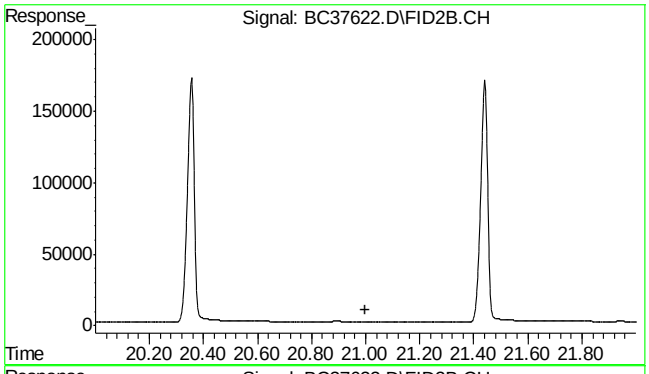


#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.

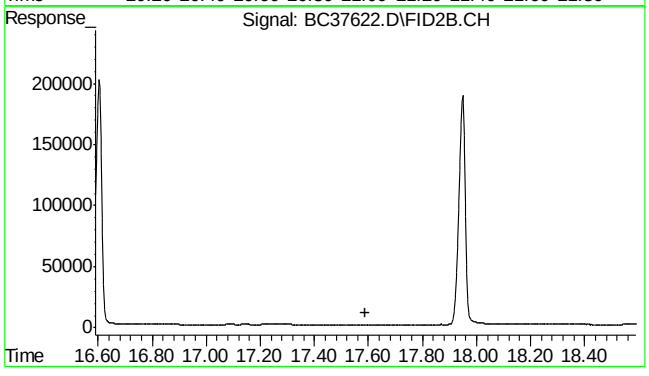
10.5.20

10



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.20

10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37675A.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37675A.D\FID2B.CH
Acq On : 3-16-10 08:22:58 AM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20839,gbc1917,800,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 16 08:55:07 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	282006	47.790 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 238.95%#	
6) s 2-bromonaphthalene	10.46	189636	50.081 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 250.41%#	
11) s o-terphenyl	14.23	336050	47.029 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 235.15%#	
35) s 1-chlorooctadecane	15.80	215236	46.949 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 234.74%#	
Target Compounds			
2) naphthalene	7.29	322130	48.462 ppm
3) 2-methylnaphthalene	8.57	316267	49.191 ppm
5) acenaphthylene	10.22	318666	47.147 ppm
7) acenaphthene	10.58	330648	46.229 ppm
8) fluorene	11.53	320340	49.188 ppm
9) phenanthrene	13.29	323904	49.217 ppm
10) anthracene	13.38	318515	48.275 ppm
12) fluoranthene	15.54	324606	47.872 ppm
13) pyrene	15.93	324801	46.473 ppm
14) benzo(a)anthracene	18.25	302440	56.071 ppm
15) chrysene	18.33	322856	47.681 ppm
16) benzo(b)fluoranthene	20.18	299439	50.129 ppm
17) benzo(k)fluoranthene	20.23	302534	46.628 ppm
18) benzo(a)pyrene	20.69	304568	49.301 ppm
19) indeno(1,2,3-cd)pyrene	22.37	236452	45.997 ppm
20) dibenzo(ah)anthracene	22.44	241495	48.647 ppm
21) benzo(ghi)perylene	22.71	219452	39.640 ppm
25) h c-9	3.81	317715	50.083 ppm
26) h c-10	5.18	320407	50.508 ppm
27) naphthalene #2	7.50	319267	45.495 ppm
28) c-12	7.68	325821	51.361 ppm
29) 2-methylnaphthalene #2	8.76	298544	47.762 ppm
30) c-14	9.86	287678	45.348 ppm
31) c-16	11.80	278645	43.924 ppm
32) c-18	13.55	280116	44.156 ppm
33) c-19	14.37	276125	51.788 ppm
34) c-20	15.15	275249	51.624 ppm
36) c-22	16.60	280451	52.600 ppm
37) c-24	17.95	281376	52.773 ppm
38) c-26	19.20	280423	52.594 ppm
39) c-28	20.36	275088	51.594 ppm
40) h c-30	21.45	283486	53.169 ppm
41) h c-36	24.33	233231	43.743 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37675A.D EPH031510.M Tue Mar 16 09:04:14 2010 RPGEN1

ACCUTEST Laboratories F71731

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37675A.D\FID1A.CH        Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37675A.D\FID2B.CH
Acq On    : 3-16-10 08:22:58 AM                      Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20839,gbc1917,800,,,2,,                Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 16 08:55:07 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.21

10

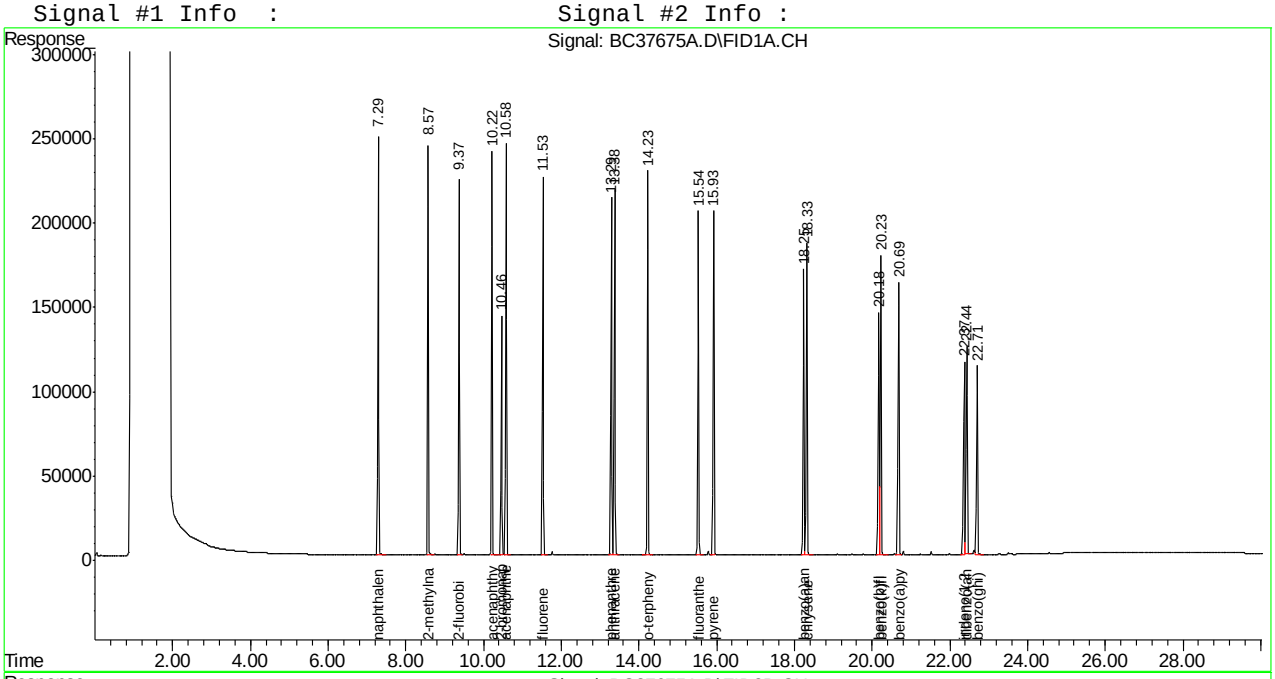
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37675A.D  EPH031510.M      Tue Mar 16 09:04:14 2010      RPGEN1
```

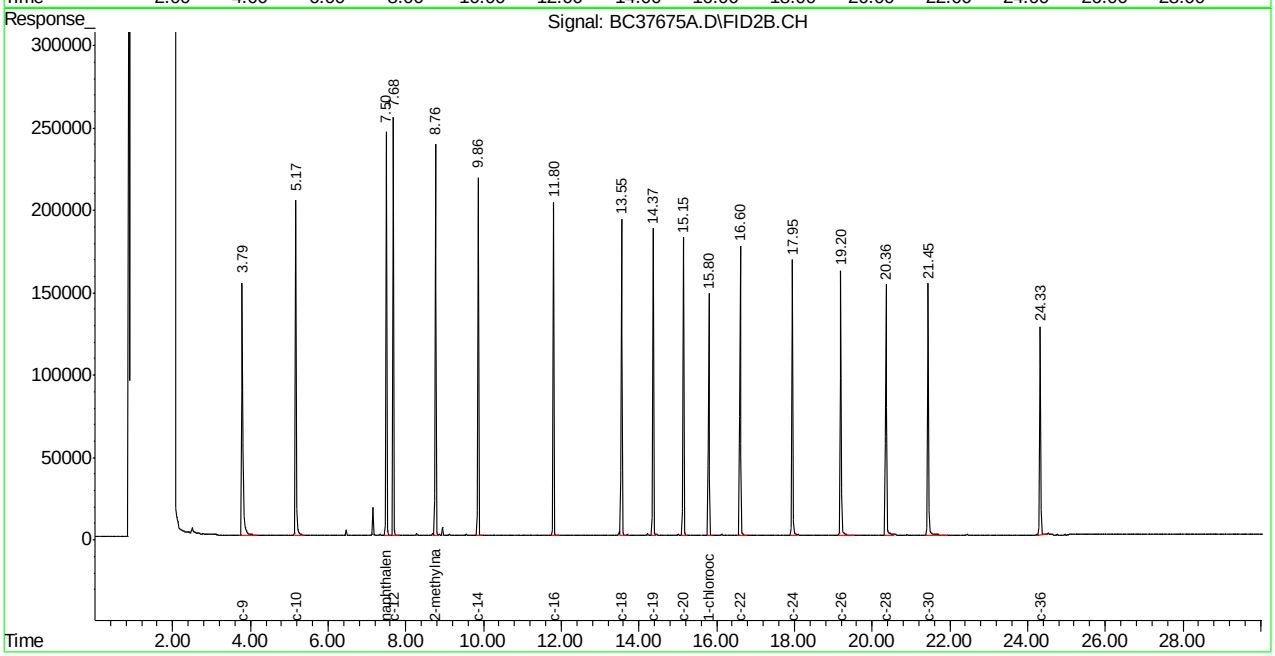
Quantitation Report (QT Reviewed)

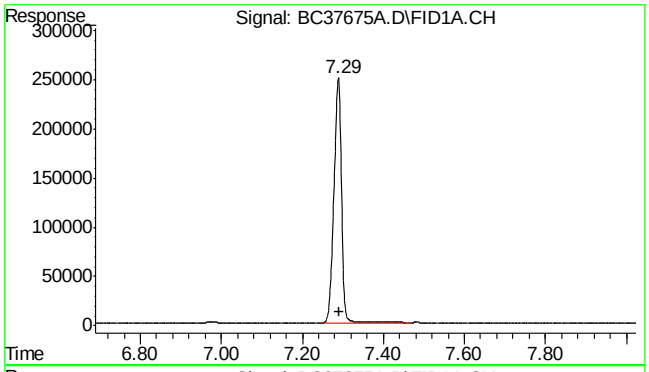
Signal #1 : C:\MSDCHEM\1\DATA\BC37675A.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37675A.D\FID2B.CH
Acq On : 3-16-10 08:22:58 AM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20839,gbc1917,800,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 16 8:56 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

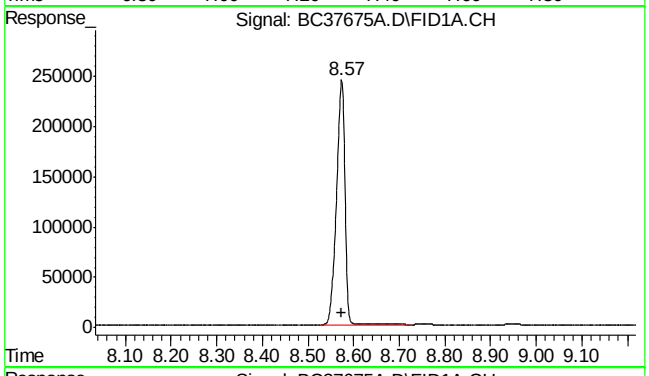






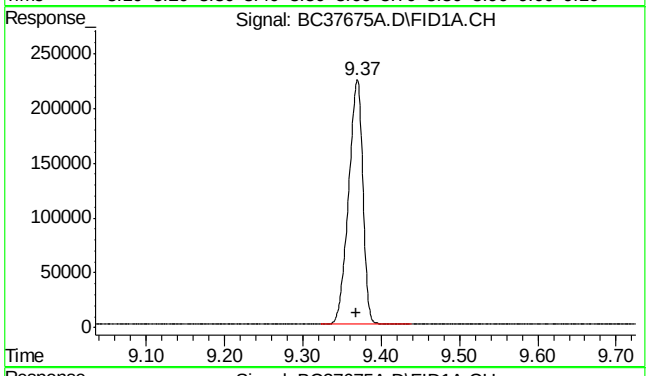
#2 naphthalene

R.T.: 7.289 min
Delta R.T.: 0.000 min
Response: 322130
Conc: 48.46 ppm



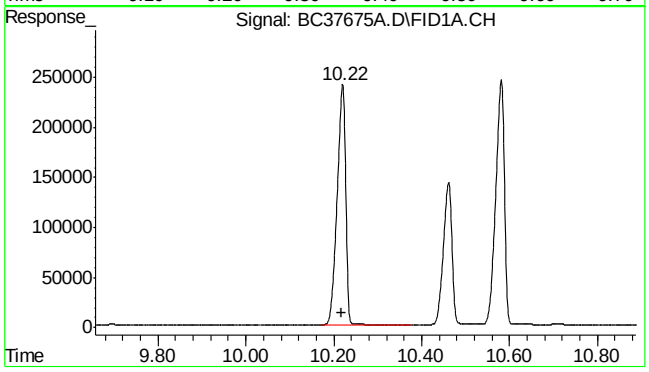
#3 2-methylnaphthalene

R.T.: 8.574 min
Delta R.T.: 0.000 min
Response: 316267
Conc: 49.19 ppm



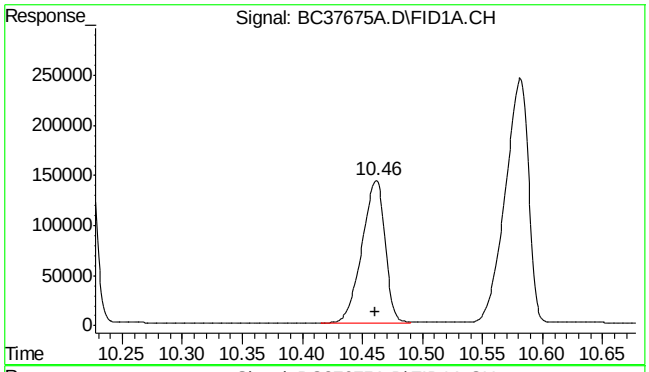
#4 2-fluorobiphenyl

R.T.: 9.369 min
Delta R.T.: 0.000 min
Response: 282006
Conc: 47.79 ppm



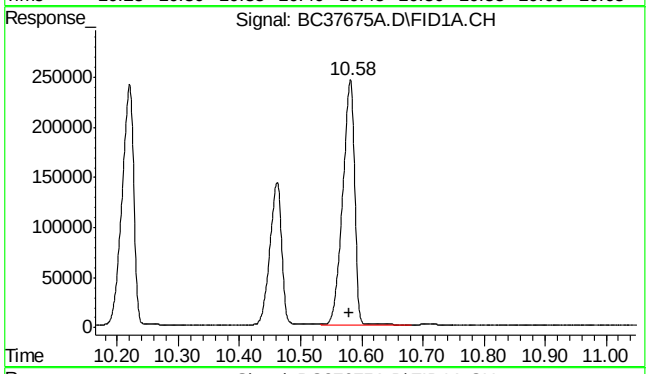
#5 acenaphthylene

R.T.: 10.220 min
Delta R.T.: 0.002 min
Response: 318666
Conc: 47.15 ppm



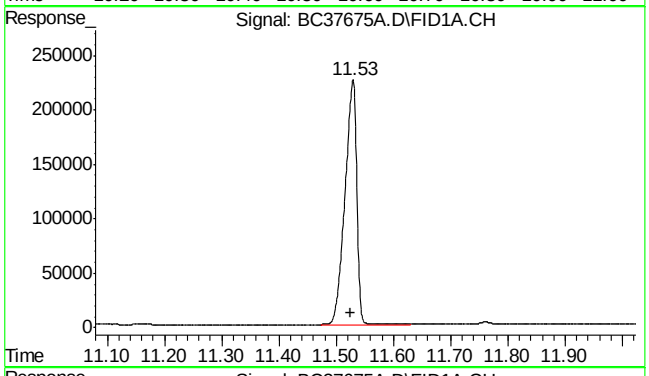
#6 2-bromonaphthalene

R.T.: 10.462 min
Delta R.T.: 0.002 min
Response: 189636
Conc: 50.08 ppm



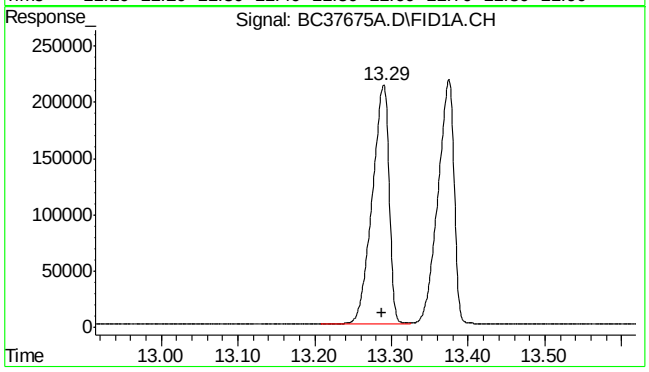
#7 acenaphthene

R.T.: 10.581 min
Delta R.T.: 0.000 min
Response: 330648
Conc: 46.23 ppm



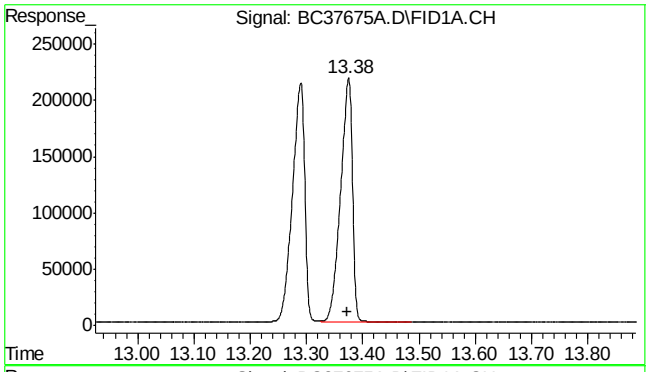
#8 fluorene

R.T.: 11.529 min
Delta R.T.: 0.004 min
Response: 320340
Conc: 49.19 ppm



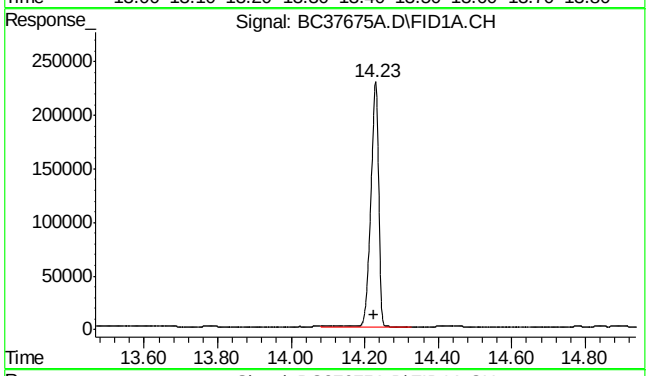
#9 phenanthrene

R.T.: 13.290 min
Delta R.T.: 0.003 min
Response: 323904
Conc: 49.22 ppm



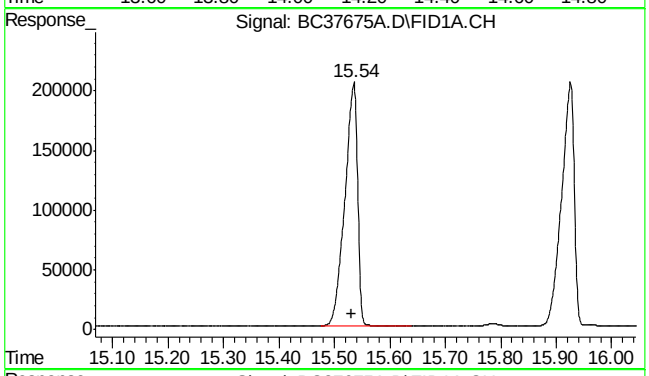
#10 anthracene

R.T.: 13.375 min
Delta R.T.: 0.003 min
Response: 318515
Conc: 48.27 ppm



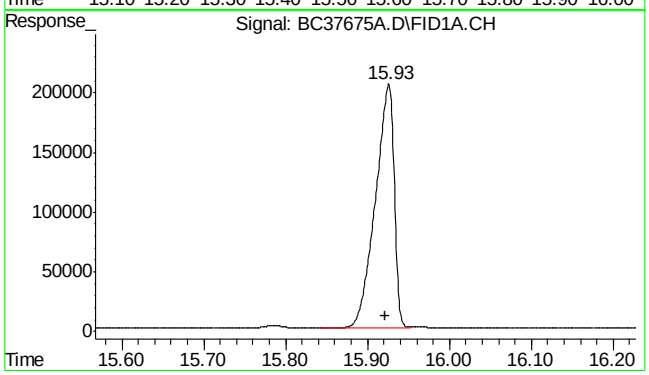
#11 o-terphenyl

R.T.: 14.229 min
Delta R.T.: 0.004 min
Response: 336050
Conc: 47.03 ppm



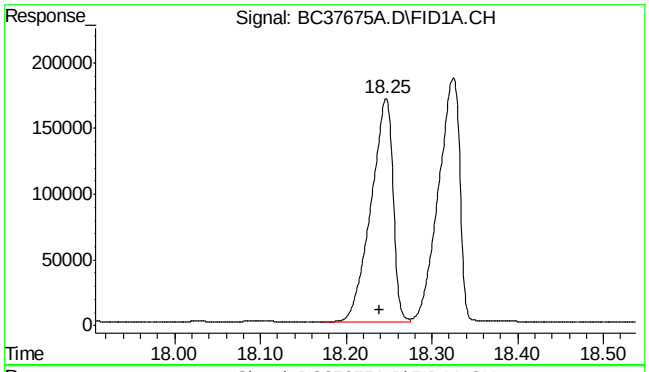
#12 fluoranthene

R.T.: 15.535 min
Delta R.T.: 0.005 min
Response: 324606
Conc: 47.87 ppm



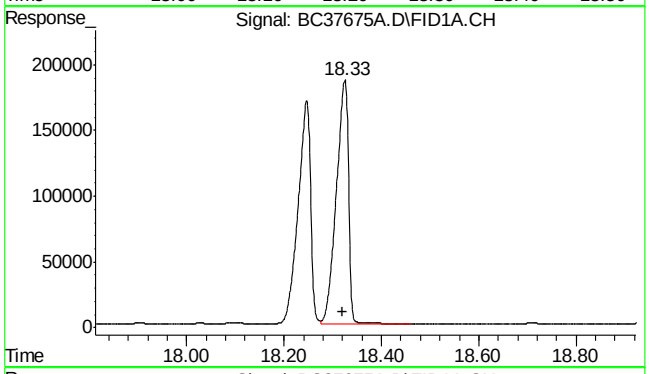
#13 pyrene

R.T.: 15.925 min
Delta R.T.: 0.004 min
Response: 324801
Conc: 46.47 ppm



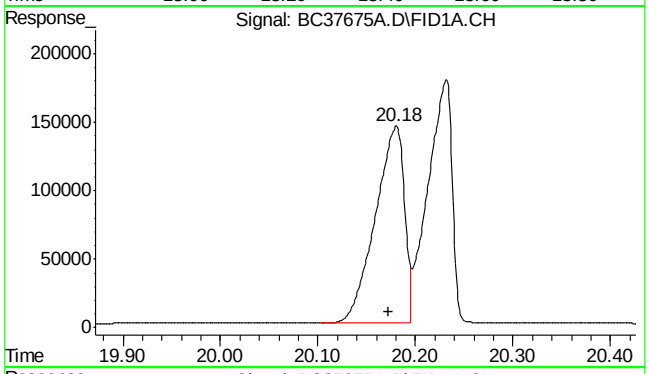
#14 benzo(a)anthracene

R.T.: 18.246 min
Delta R.T.: 0.007 min
Response: 302440
Conc: 56.07 ppm



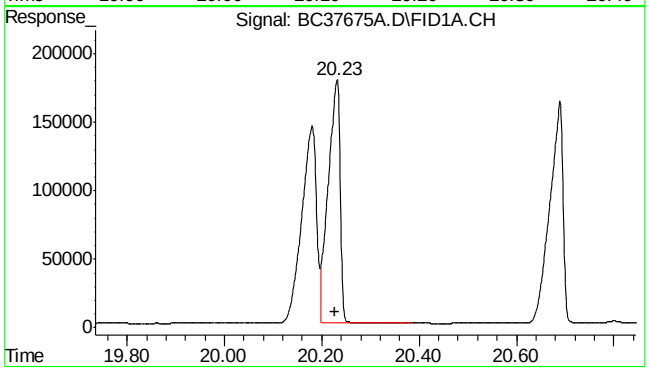
#15 chrysene

R.T.: 18.325 min
Delta R.T.: 0.006 min
Response: 322856
Conc: 47.68 ppm



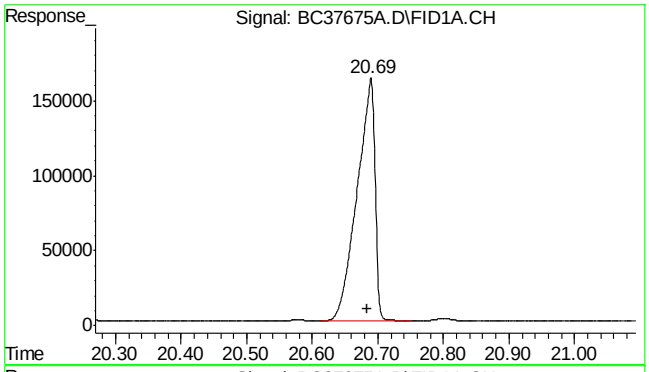
#16 benzo(b)fluoranthene

R.T.: 20.180 min
Delta R.T.: 0.007 min
Response: 299439
Conc: 50.13 ppm



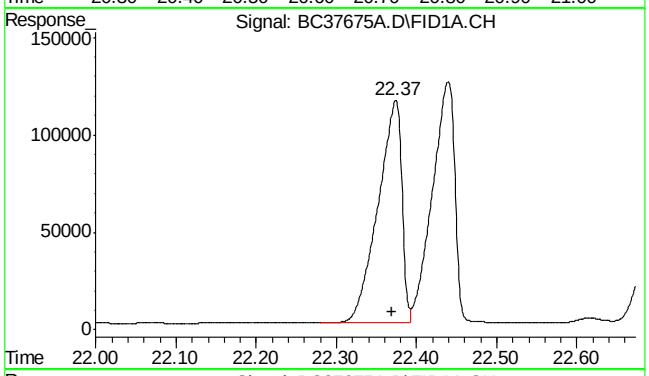
#17 benzo(k)fluoranthene

R.T.: 20.232 min
Delta R.T.: 0.006 min
Response: 302534
Conc: 46.63 ppm



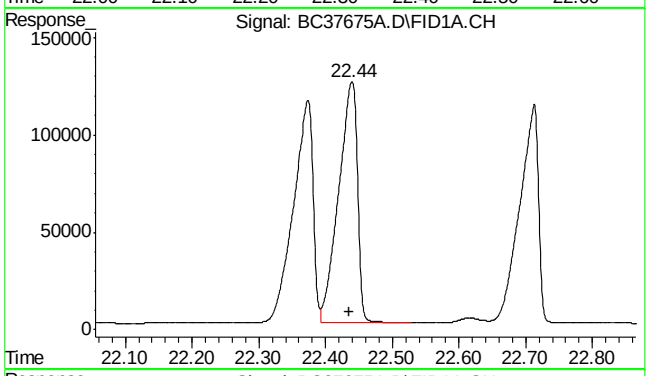
#18 benzo(a)pyrene

R.T.: 20.689 min
Delta R.T.: 0.006 min
Response: 304568
Conc: 49.30 ppm



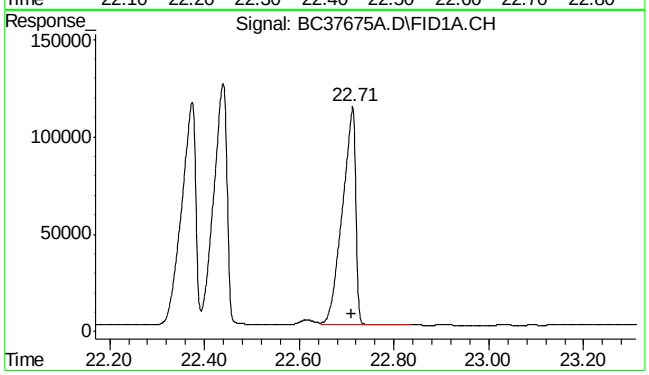
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.374 min
Delta R.T.: 0.004 min
Response: 236452
Conc: 46.00 ppm



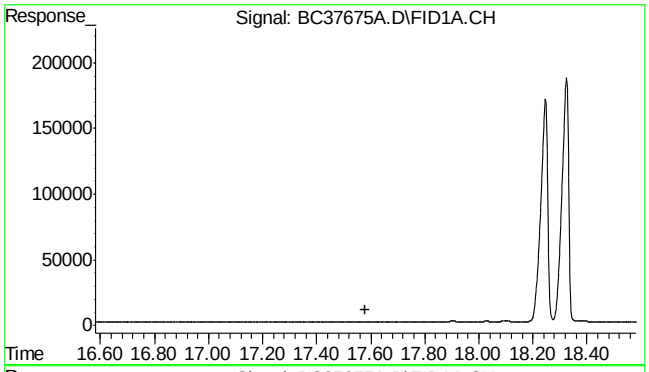
#20 dibenzo(ah)anthracene

R.T.: 22.439 min
Delta R.T.: 0.003 min
Response: 241495
Conc: 48.65 ppm



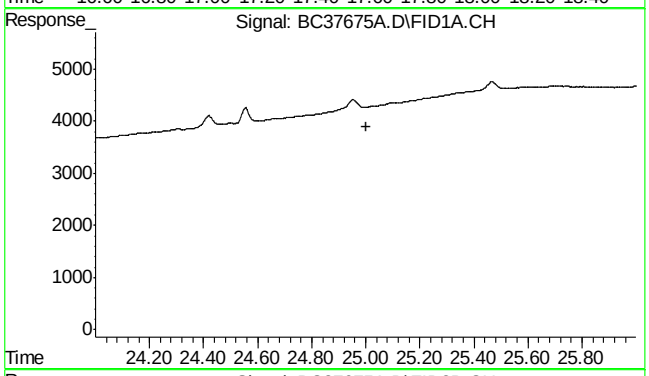
#21 benzo(ghi)perylene

R.T.: 22.713 min
Delta R.T.: 0.002 min
Response: 219452
Conc: 39.64 ppm



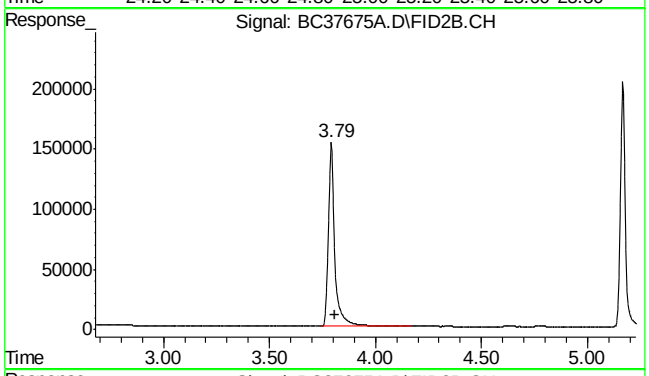
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



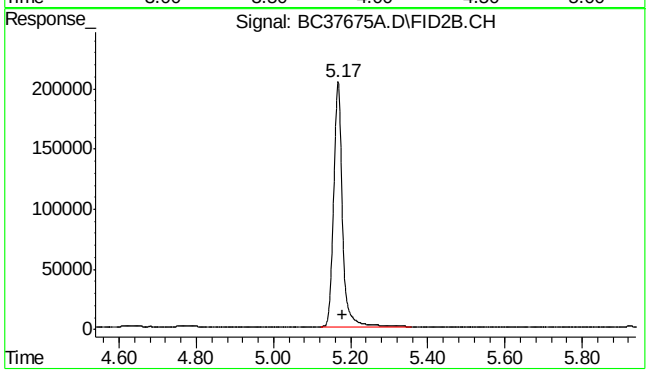
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



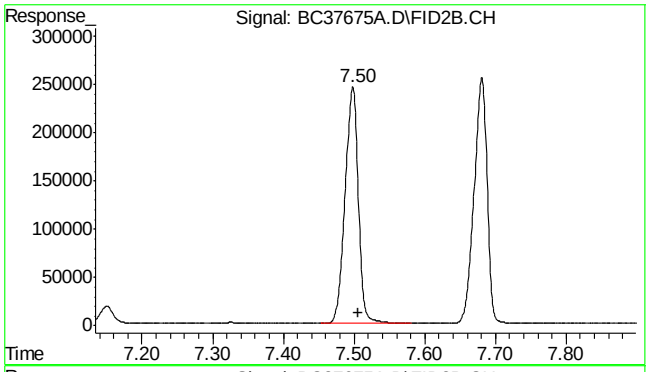
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 317715
Conc: 50.08 ppm m



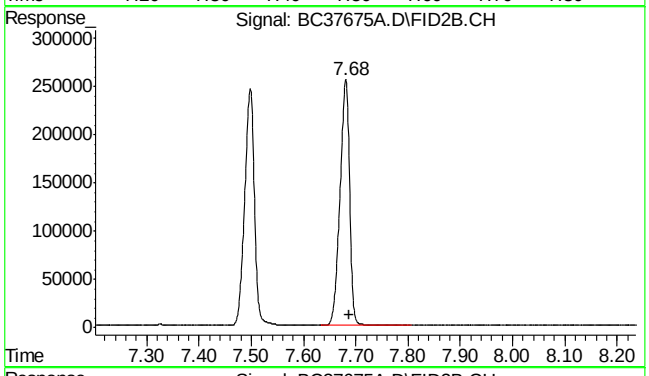
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 320407
Conc: 50.51 ppm m



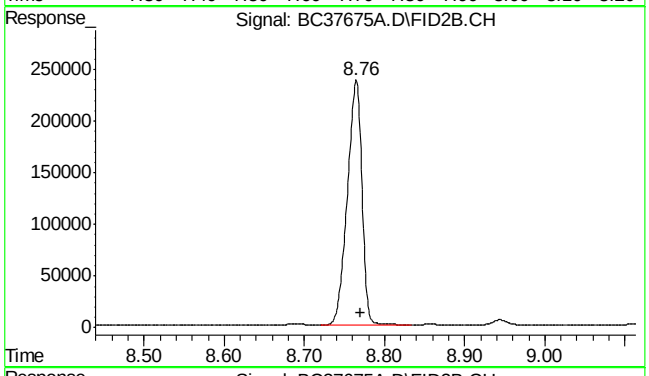
#27 naphthalene #2

R.T.: 7.498 min
Delta R.T.: -0.008 min
Response: 319267
Conc: 45.49 ppm



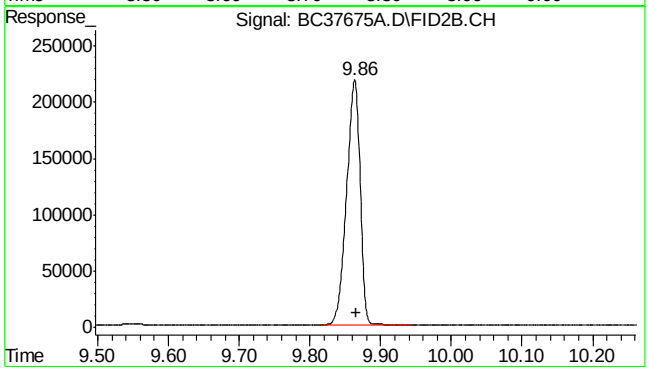
#28 c-12

R.T.: 7.681 min
Delta R.T.: -0.006 min
Response: 325821
Conc: 51.36 ppm



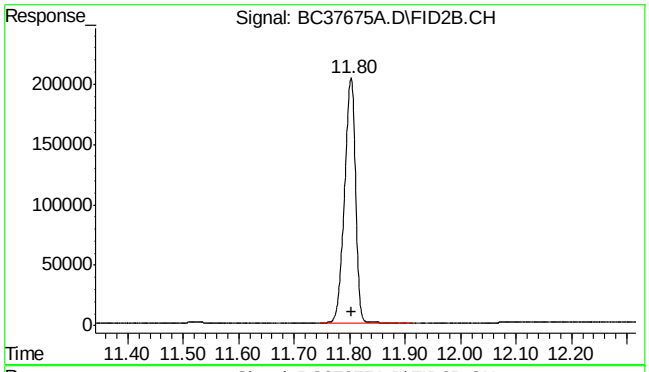
#29 2-methylnaphthalene #2

R.T.: 8.764 min
Delta R.T.: -0.006 min
Response: 298544
Conc: 47.76 ppm



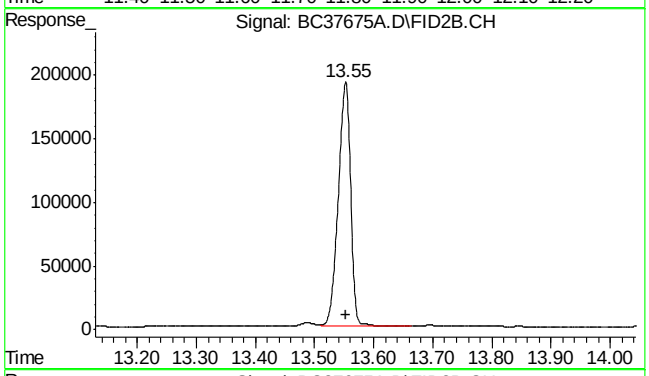
#30 c-14

R.T.: 9.864 min
Delta R.T.: -0.003 min
Response: 287678
Conc: 45.35 ppm



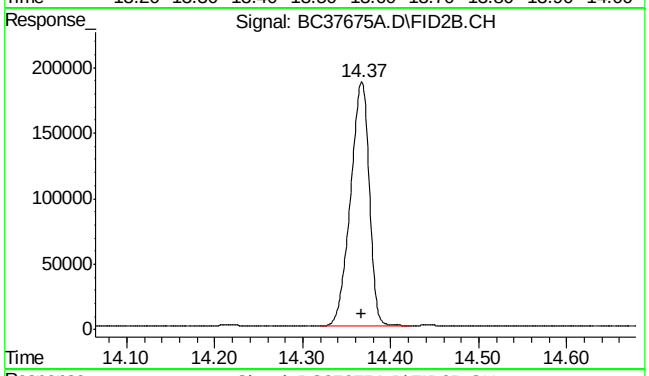
#31 c-16

R.T.: 11.803 min
Delta R.T.: -0.002 min
Response: 278645
Conc: 43.92 ppm



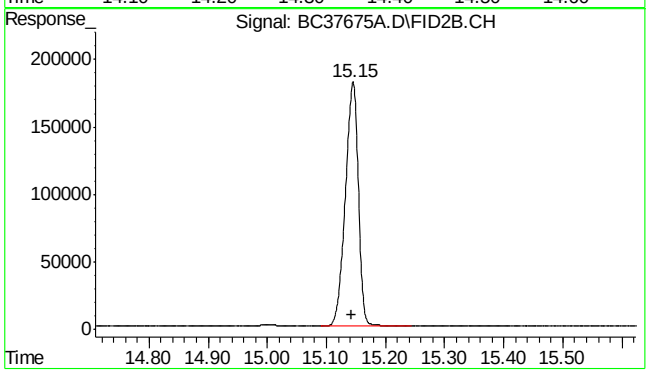
#32 c-18

R.T.: 13.553 min
Delta R.T.: 0.000 min
Response: 280116
Conc: 44.16 ppm



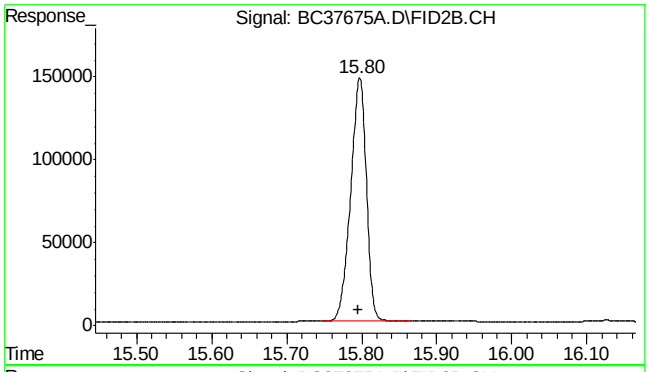
#33 c-19

R.T.: 14.367 min
Delta R.T.: 0.000 min
Response: 276125
Conc: 51.79 ppm



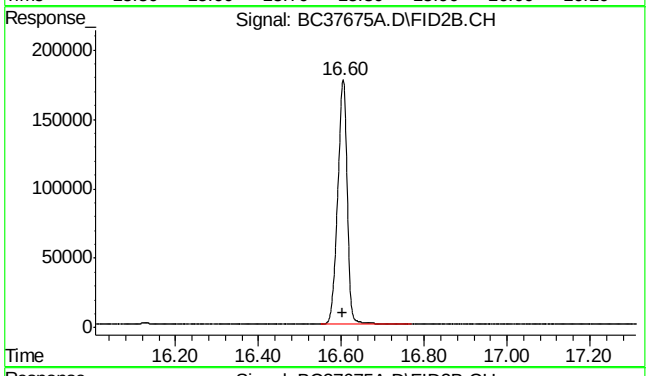
#34 c-20

R.T.: 15.145 min
Delta R.T.: 0.002 min
Response: 275249
Conc: 51.62 ppm



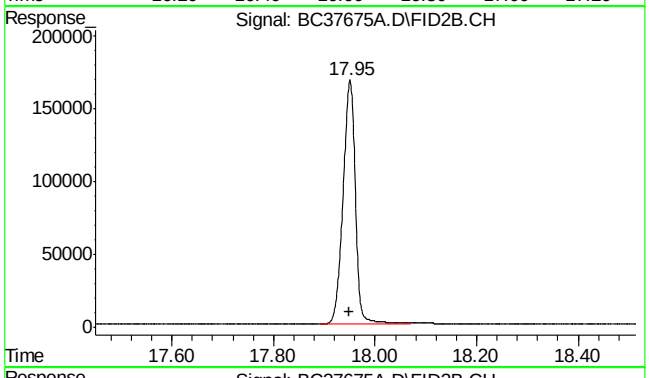
#35 1-chlorooctadecane

R.T.: 15.797 min
Delta R.T.: 0.000 min
Response: 215236
Conc: 46.95 ppm



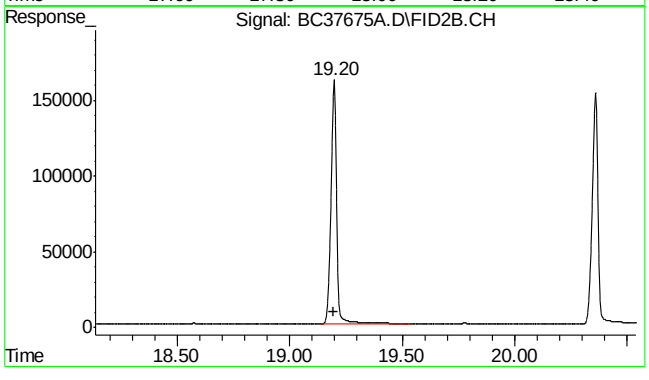
#36 c-22

R.T.: 16.604 min
Delta R.T.: 0.002 min
Response: 280451
Conc: 52.60 ppm



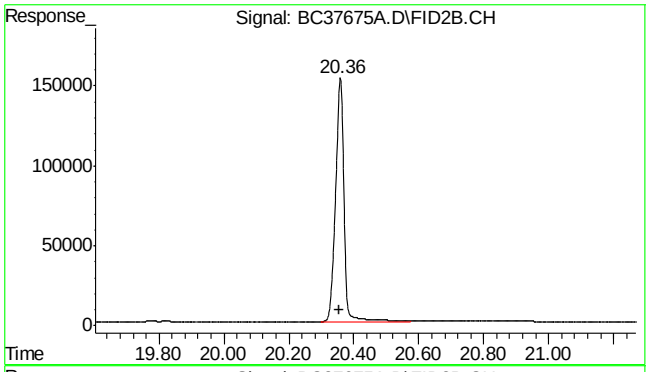
#37 c-24

R.T.: 17.950 min
Delta R.T.: 0.002 min
Response: 281376
Conc: 52.77 ppm



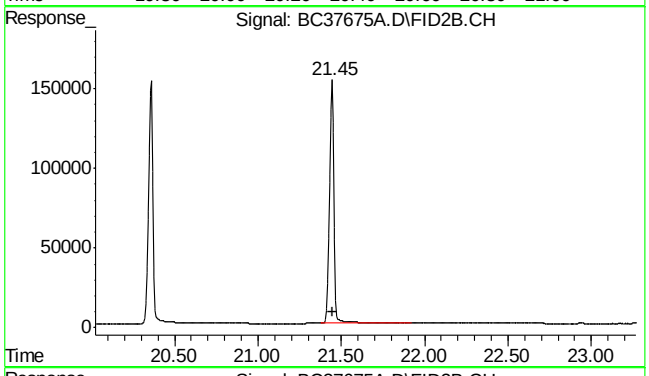
#38 c-26

R.T.: 19.198 min
Delta R.T.: 0.002 min
Response: 280423
Conc: 52.59 ppm



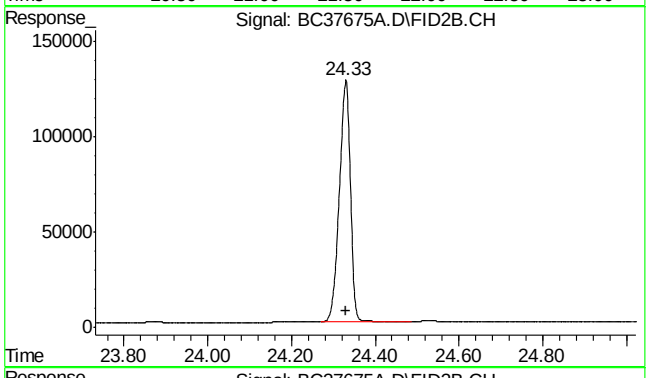
#39 c-28

R.T.: 20.359 min
Delta R.T.: 0.003 min
Response: 275088
Conc: 51.59 ppm



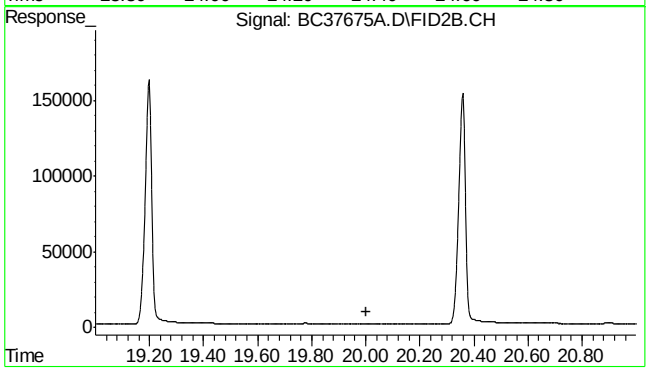
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 283486
Conc: 53.17 ppm m



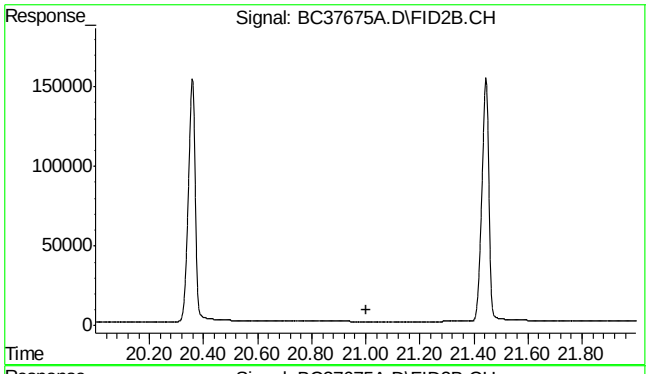
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 233231
Conc: 43.74 ppm m



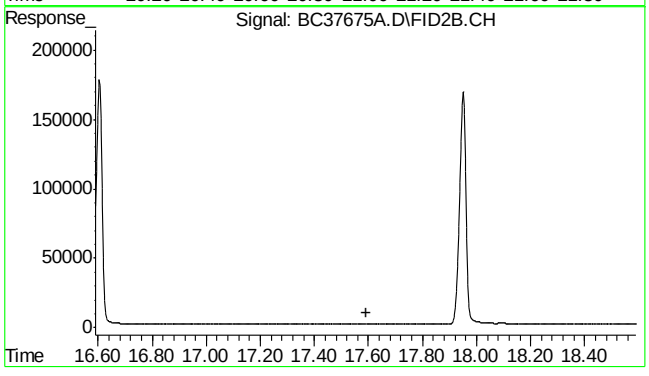
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.21

10

ACCUTEST Laboratories F71731

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37685.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37685.D\FID2B.CH
Acq On : 3-16-10 03:37:24 PM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20839,gbc1917,900,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 16 16:08:09 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	286862	48.613 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 243.07%#	
6) s 2-bromonaphthalene	10.46	193240	51.033 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 255.16%#	
11) s o-terphenyl	14.23	339566	47.521 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 237.61%#	
35) s 1-chlorooctadecane	15.80	229479	50.056 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 250.28%#	
Target Compounds			
2) naphthalene	7.29	327114	49.212 ppm
3) 2-methylnaphthalene	8.57	321378	49.986 ppm
5) acenaphthylene	10.22	325010	48.085 ppm
7) acenaphthene	10.58	337049	47.124 ppm
8) fluorene	11.53	325931	50.046 ppm
9) phenanthrene	13.29	329390	50.051 ppm
10) anthracene	13.37	325624	49.352 ppm
12) fluoranthene	15.53	332953	49.103 ppm
13) pyrene	15.92	333805	47.761 ppm
14) benzo(a)anthracene	18.24	310958	57.650 ppm
15) chrysene	18.32	333796	49.297 ppm
16) benzo(b)fluoranthene	20.18	316031	52.907 ppm
17) benzo(k)fluoranthene	20.23	322729	49.741 ppm
18) benzo(a)pyrene	20.69	324992	52.607 ppm
19) indeno(1,2,3-cd)pyrene	22.38	284989	55.439 ppm
20) dibenzo(ah)anthracene	22.44	284677	57.345 ppm
21) benzo(ghi)perylene	22.72	275231	49.715 ppm
25) h c-9	3.81	321144	50.624 ppm
26) h c-10	5.18	323296	50.963 ppm
27) naphthalene #2	7.51	327358	46.648 ppm
28) c-12	7.69	331187	52.207 ppm
29) 2-methylnaphthalene #2	8.77	309094	49.450 ppm
30) c-14	9.87	296729	46.775 ppm
31) c-16	11.81	291019	45.875 ppm
32) c-18	13.56	293176	46.215 ppm
33) c-19	14.37	289035	54.210 ppm
34) c-20	15.15	287588	53.938 ppm
36) c-22	16.61	292269	54.816 ppm
37) c-24	17.95	294280	55.193 ppm
38) c-26	19.20	290768	54.535 ppm
39) c-28	20.36	286162	53.671 ppm
40) h c-30	21.45	293867	55.116 ppm
41) h c-36	24.33	255302	47.883 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37685.D EPH031510.M Tue Mar 16 16:27:53 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37685.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37685.D\FID2B.CH
Acq On    : 3-16-10 03:37:24 PM                      Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20839,gbc1917,900,,,2,,                Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 16 16:08:09 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-----------------------------------------------------------------------
```

10.5.22

10

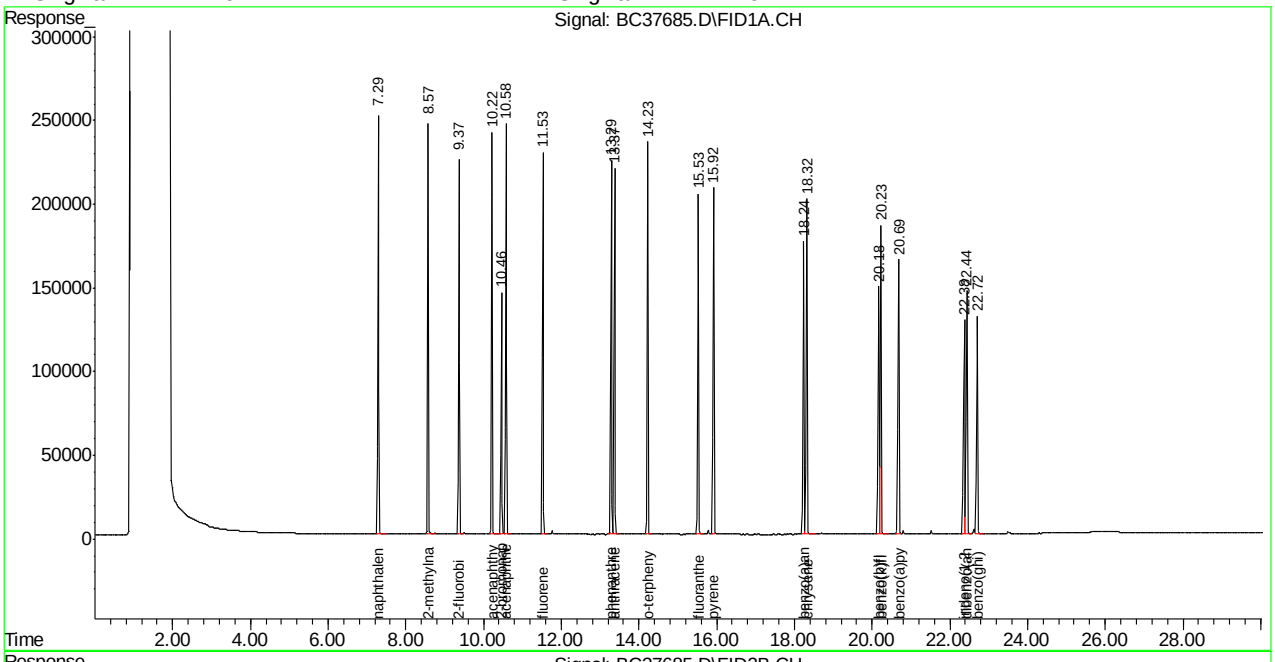
```
-----------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37685.D  EPH031510.M      Tue Mar 16 16:27:53 2010      RPGEN1
```

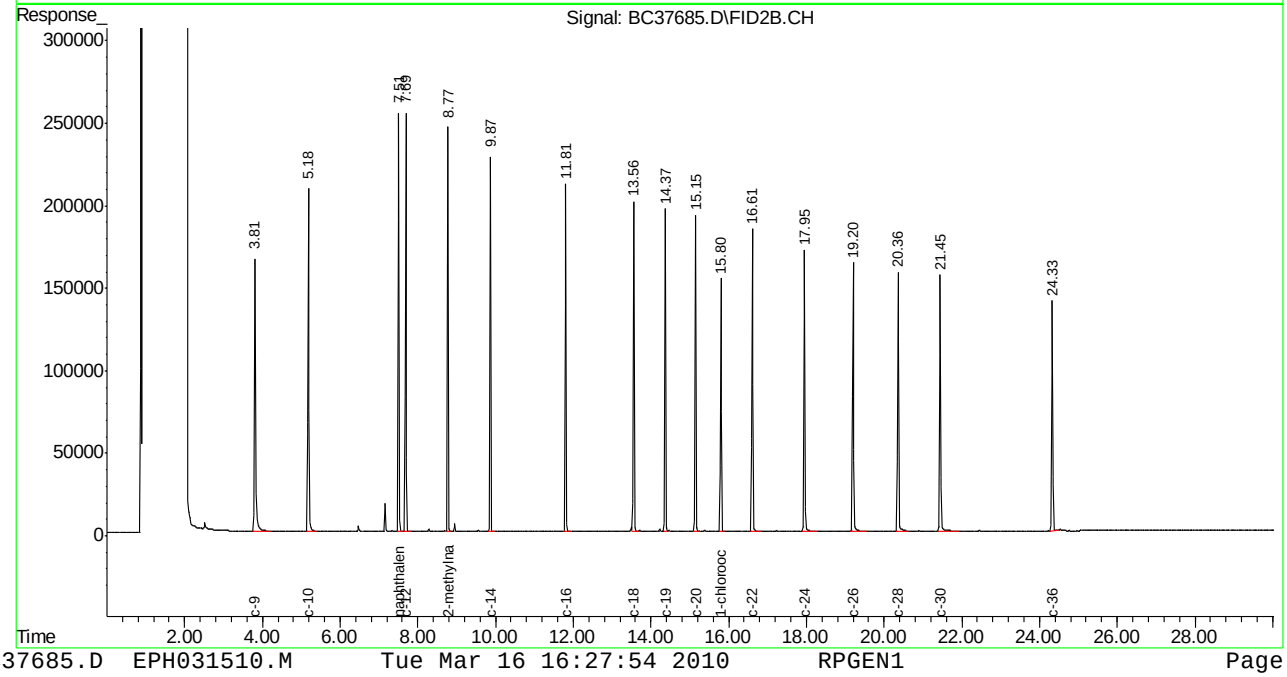
Quantitation Report (QT Reviewed)

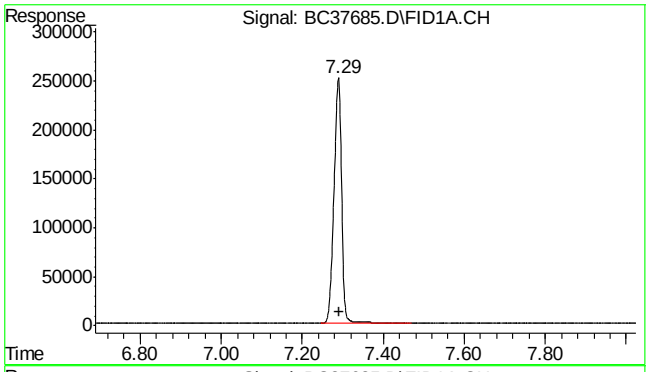
Signal #1 : C:\MSDCHEM\1\DATA\BC37685.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37685.D\FID2B.CH
Acq On : 3-16-10 03:37:24 PM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20839,gbc1917,900,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 16 16:09 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

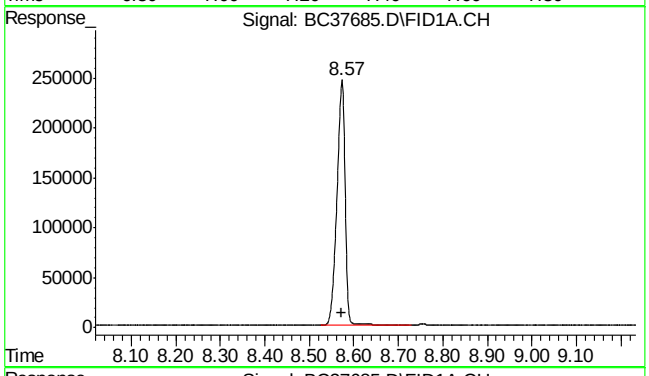






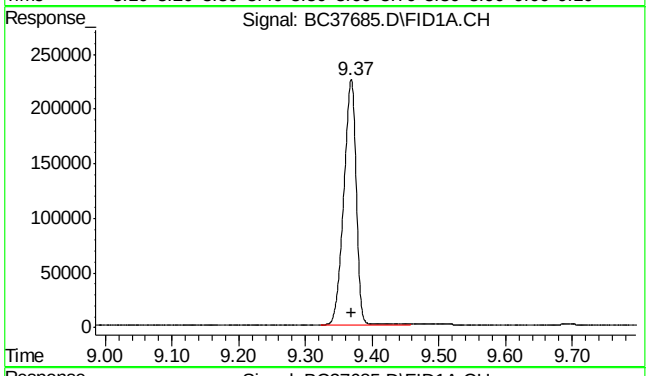
#2 naphthalene

R.T.: 7.290 min
Delta R.T.: 0.000 min
Response: 327114
Conc: 49.21 ppm



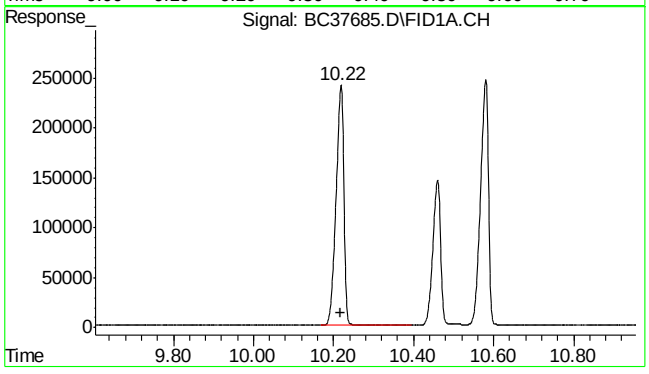
#3 2-methylnaphthalene

R.T.: 8.574 min
Delta R.T.: 0.000 min
Response: 321378
Conc: 49.99 ppm



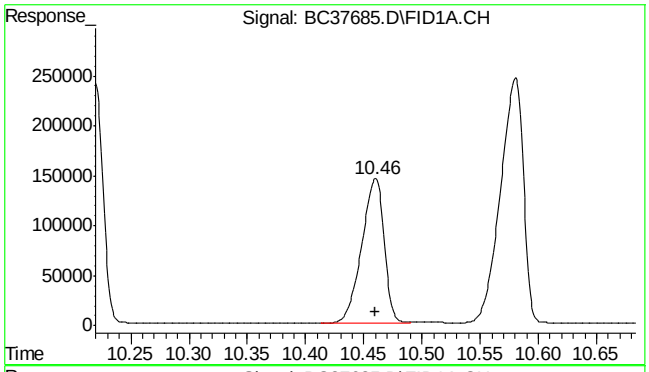
#4 2-fluorobiphenyl

R.T.: 9.368 min
Delta R.T.: 0.000 min
Response: 286862
Conc: 48.61 ppm



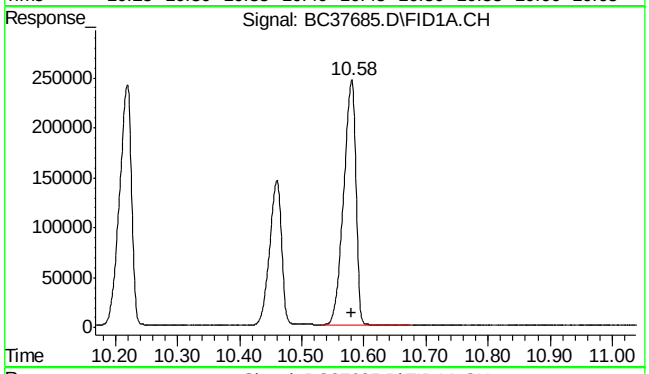
#5 acenaphthylene

R.T.: 10.219 min
Delta R.T.: 0.000 min
Response: 325010
Conc: 48.09 ppm



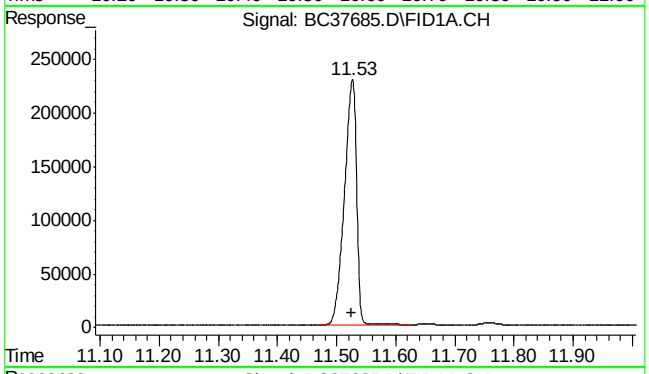
#6 2-bromonaphthalene

R.T.: 10.460 min
Delta R.T.: 0.000 min
Response: 193240
Conc: 51.03 ppm



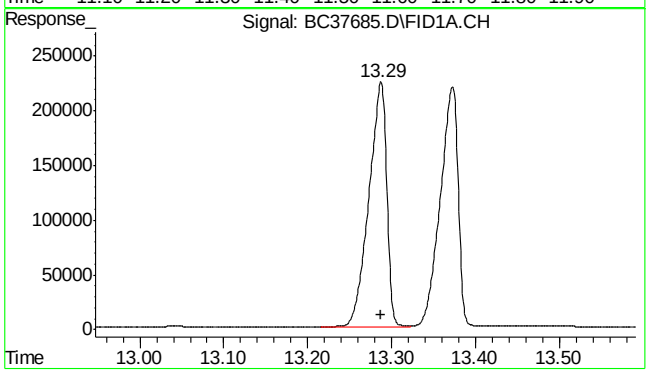
#7 acenaphthene

R.T.: 10.580 min
Delta R.T.: 0.000 min
Response: 337049
Conc: 47.12 ppm



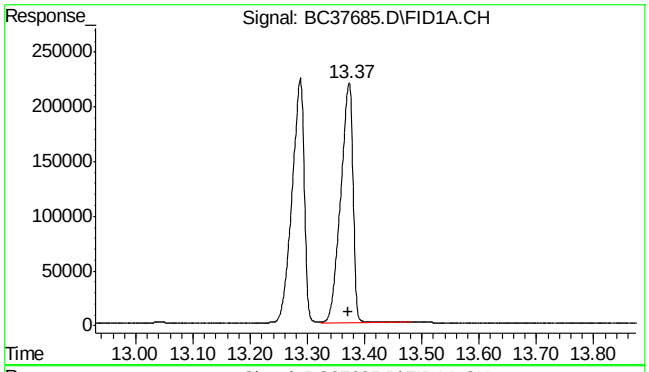
#8 fluorene

R.T.: 11.526 min
Delta R.T.: 0.000 min
Response: 325931
Conc: 50.05 ppm



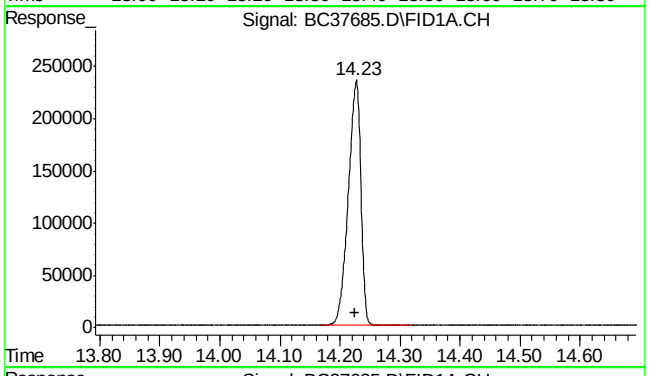
#9 phenanthrene

R.T.: 13.287 min
Delta R.T.: 0.000 min
Response: 329390
Conc: 50.05 ppm



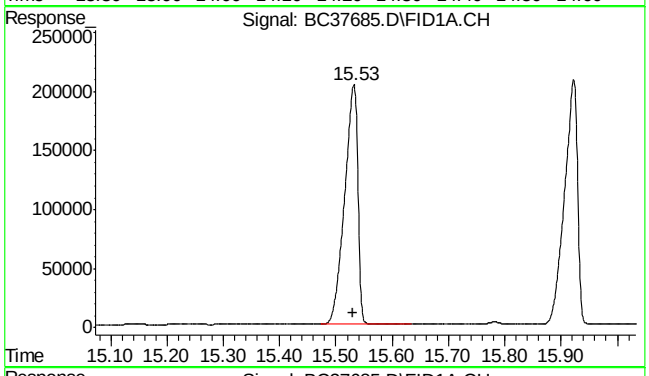
#10 anthracene

R.T.: 13.373 min
Delta R.T.: 0.000 min
Response: 325624
Conc: 49.35 ppm



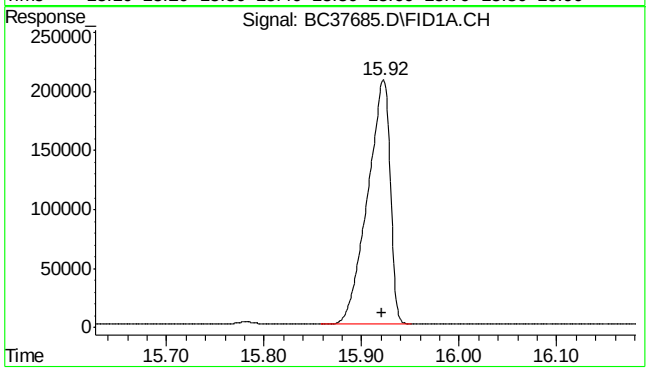
#11 o-terphenyl

R.T.: 14.227 min
Delta R.T.: 0.002 min
Response: 339566
Conc: 47.52 ppm



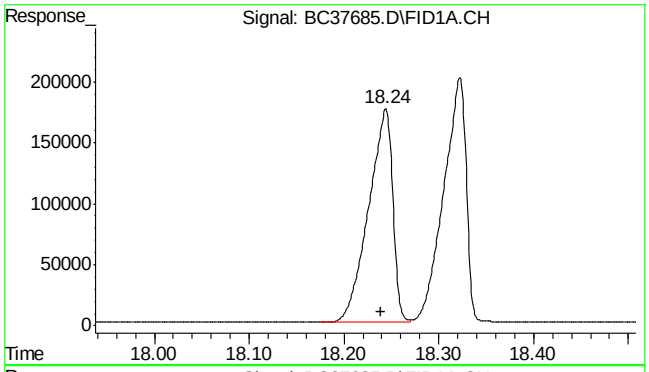
#12 fluoranthene

R.T.: 15.532 min
Delta R.T.: 0.002 min
Response: 332953
Conc: 49.10 ppm



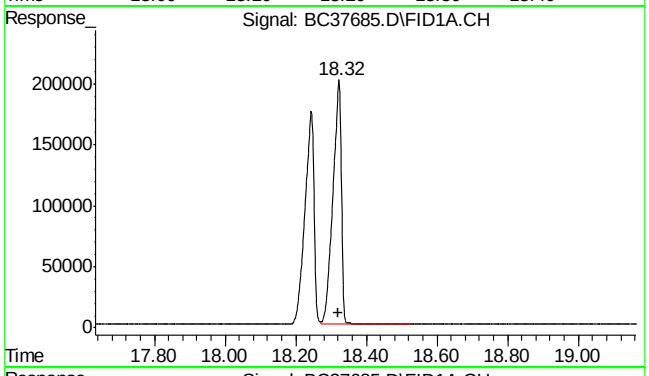
#13 pyrene

R.T.: 15.922 min
Delta R.T.: 0.000 min
Response: 333805
Conc: 47.76 ppm



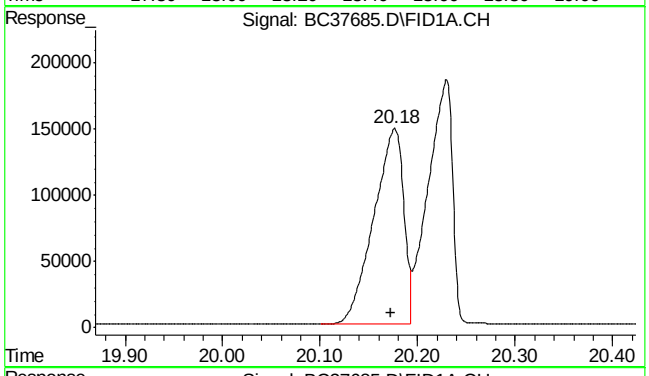
#14 benzo(a)anthracene

R.T.: 18.244 min
Delta R.T.: 0.005 min
Response: 310958
Conc: 57.65 ppm



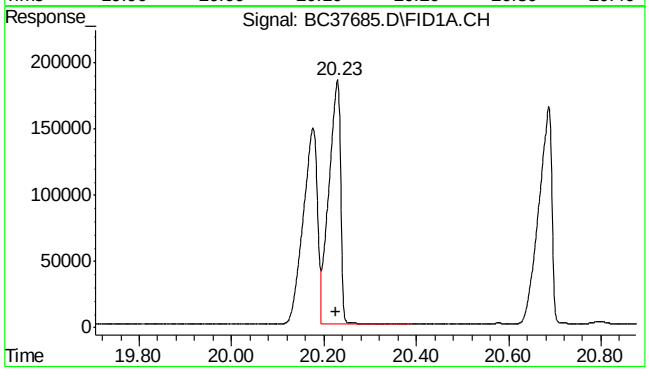
#15 chrysene

R.T.: 18.322 min
Delta R.T.: 0.003 min
Response: 333796
Conc: 49.30 ppm



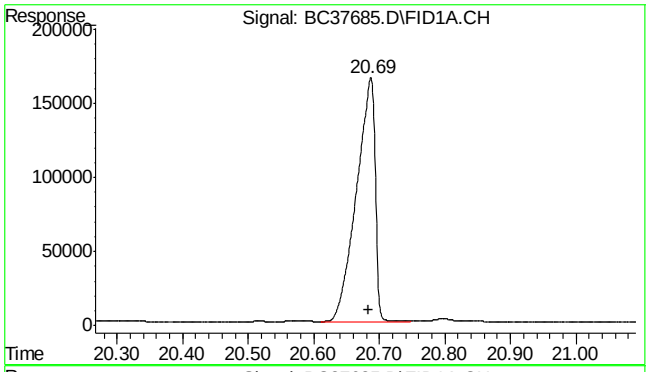
#16 benzo(b)fluoranthene

R.T.: 20.176 min
Delta R.T.: 0.003 min
Response: 316031
Conc: 52.91 ppm



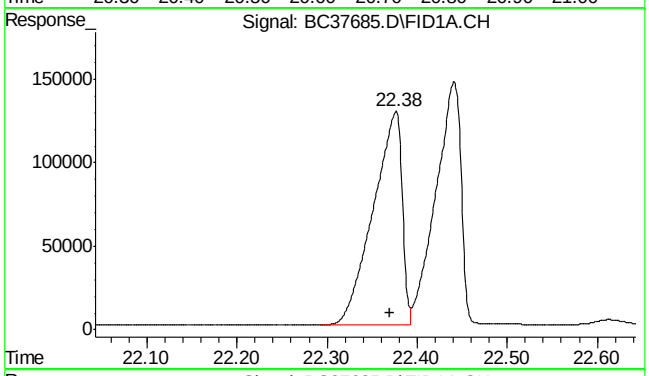
#17 benzo(k)fluoranthene

R.T.: 20.229 min
Delta R.T.: 0.003 min
Response: 322729
Conc: 49.74 ppm



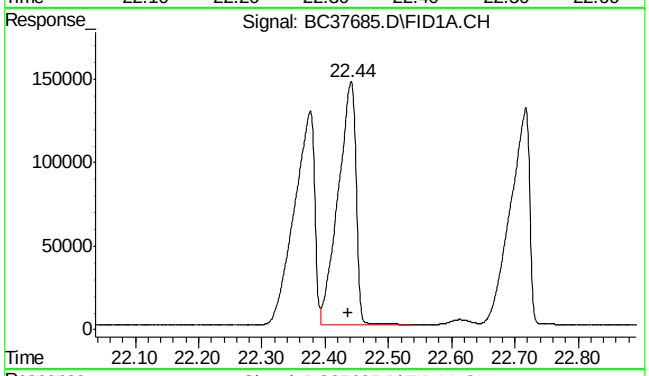
#18 benzo(a)pyrene

R.T.: 20.687 min
Delta R.T.: 0.003 min
Response: 324992
Conc: 52.61 ppm



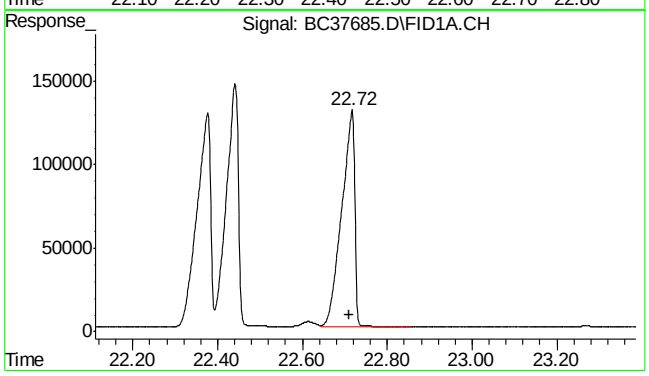
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.377 min
Delta R.T.: 0.007 min
Response: 284989
Conc: 55.44 ppm



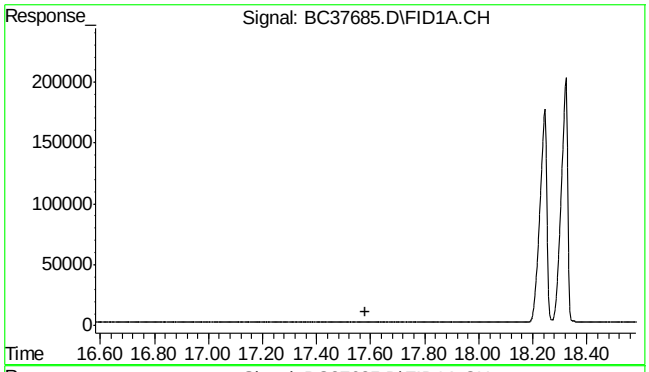
#20 dibenzo(ah)anthracene

R.T.: 22.440 min
Delta R.T.: 0.004 min
Response: 284677
Conc: 57.35 ppm



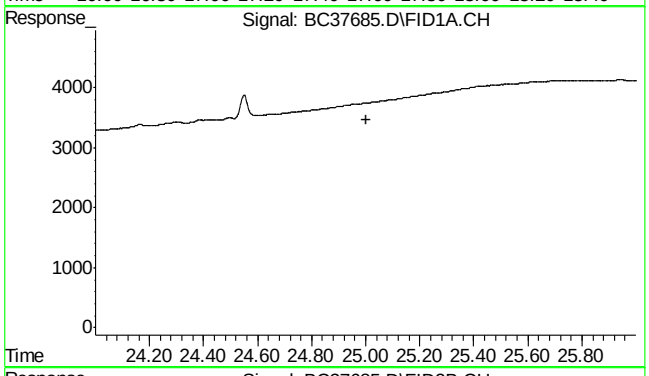
#21 benzo(ghi)perylene

R.T.: 22.717 min
Delta R.T.: 0.006 min
Response: 275231
Conc: 49.72 ppm



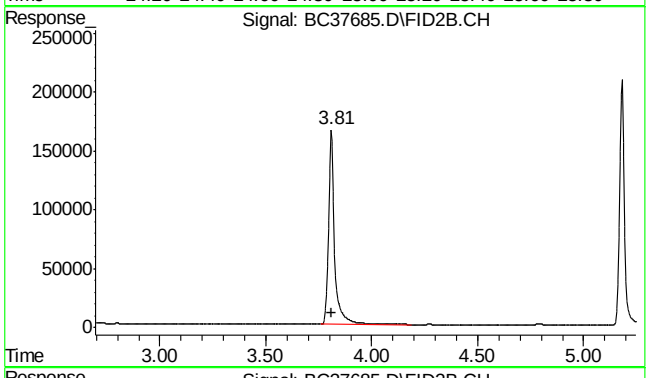
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



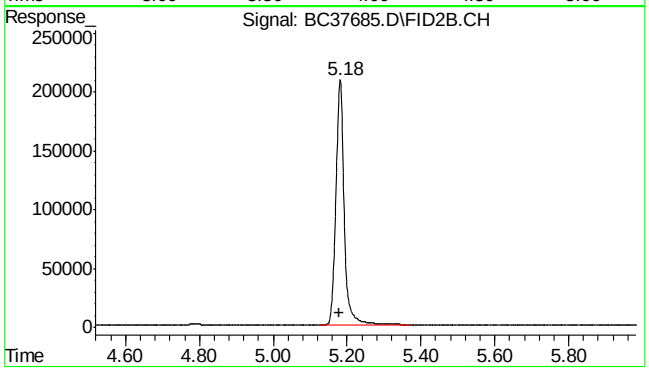
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



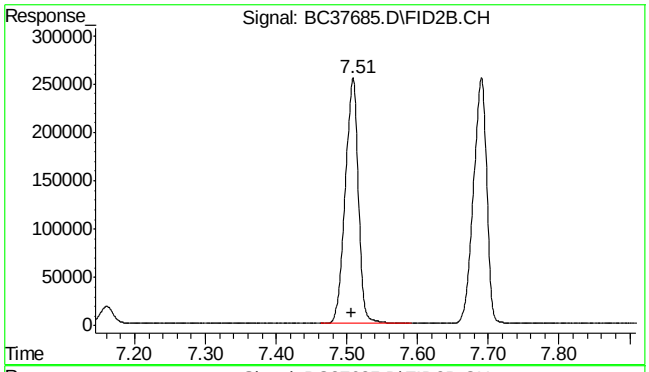
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 321144
Conc: 50.62 ppm m



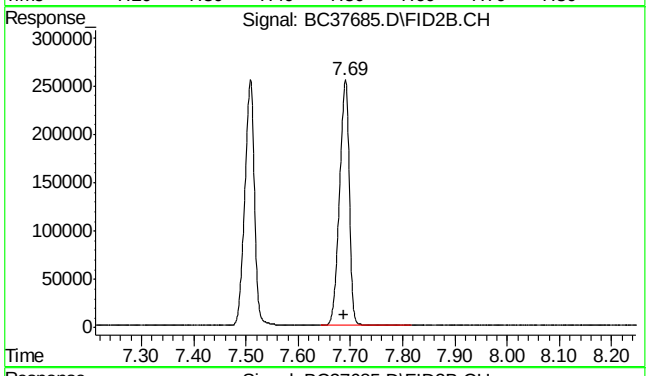
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 323296
Conc: 50.96 ppm m



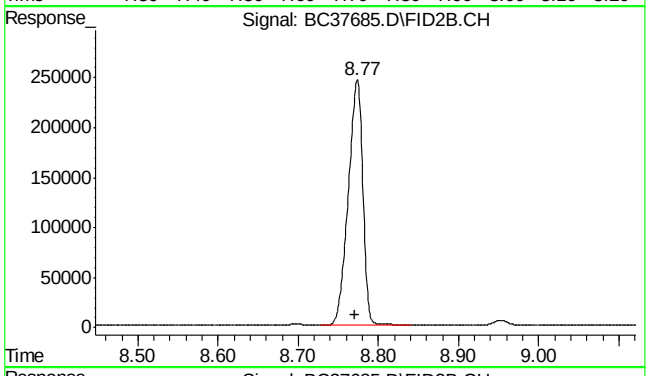
#27 naphthalene #2

R.T.: 7.509 min
Delta R.T.: 0.003 min
Response: 327358
Conc: 46.65 ppm



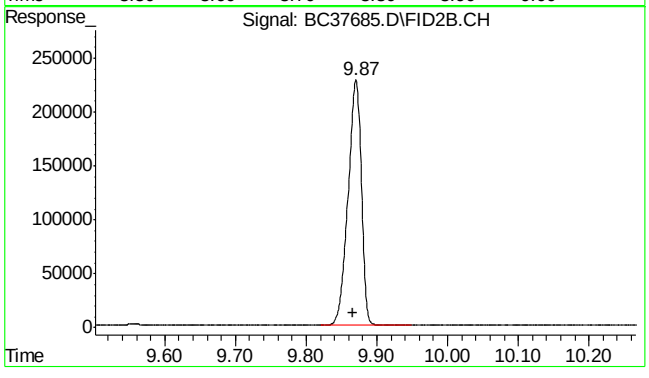
#28 c-12

R.T.: 7.690 min
Delta R.T.: 0.003 min
Response: 331187
Conc: 52.21 ppm



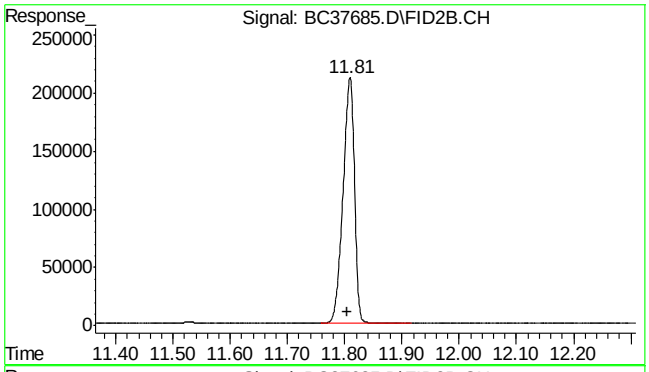
#29 2-methylnaphthalene #2

R.T.: 8.774 min
Delta R.T.: 0.003 min
Response: 309094
Conc: 49.45 ppm



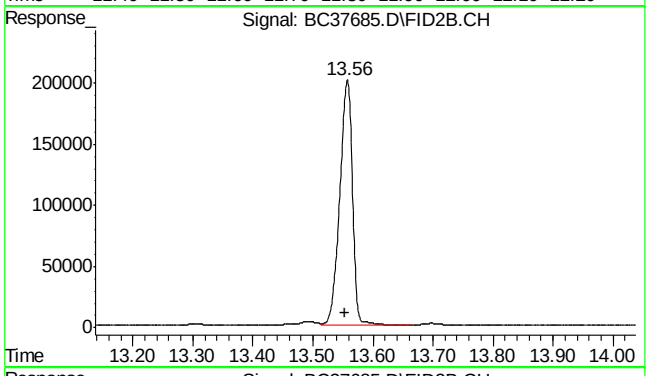
#30 c-14

R.T.: 9.870 min
Delta R.T.: 0.004 min
Response: 296729
Conc: 46.78 ppm



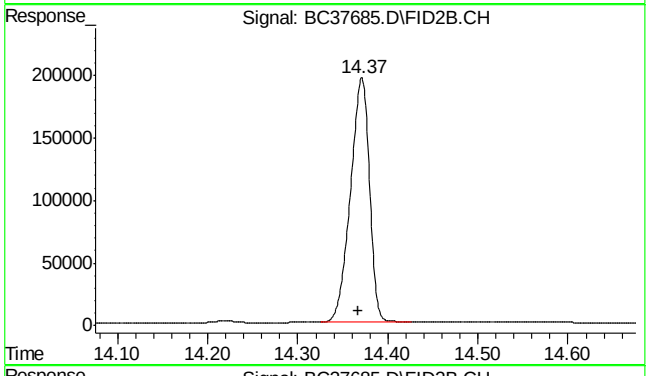
#31 c-16

R.T.: 11.809 min
Delta R.T.: 0.004 min
Response: 291019
Conc: 45.88 ppm



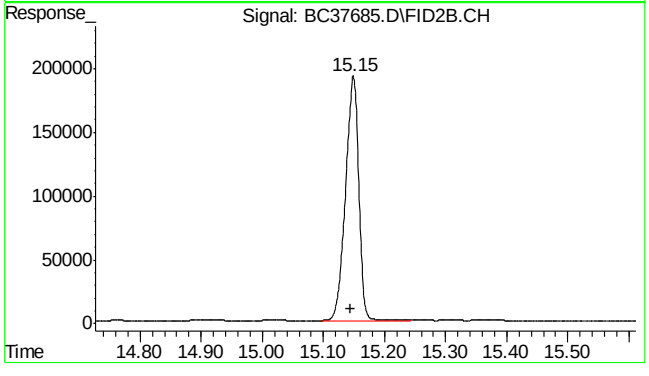
#32 c-18

R.T.: 13.557 min
Delta R.T.: 0.003 min
Response: 293176
Conc: 46.22 ppm



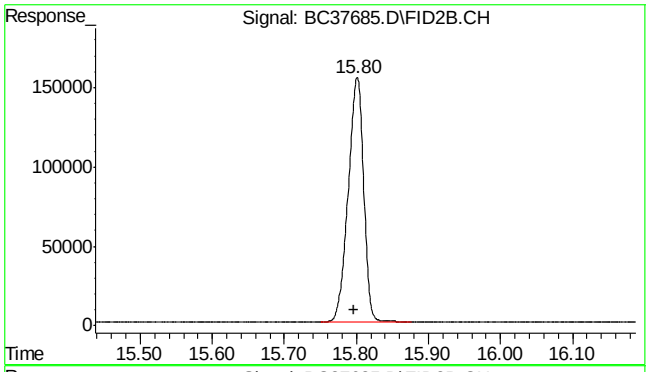
#33 c-19

R.T.: 14.371 min
Delta R.T.: 0.004 min
Response: 289035
Conc: 54.21 ppm



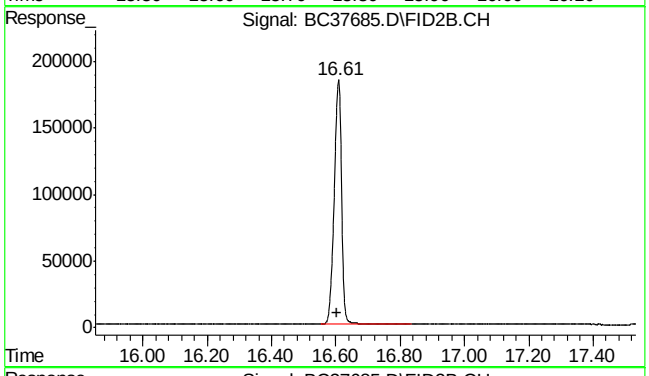
#34 c-20

R.T.: 15.149 min
Delta R.T.: 0.005 min
Response: 287588
Conc: 53.94 ppm



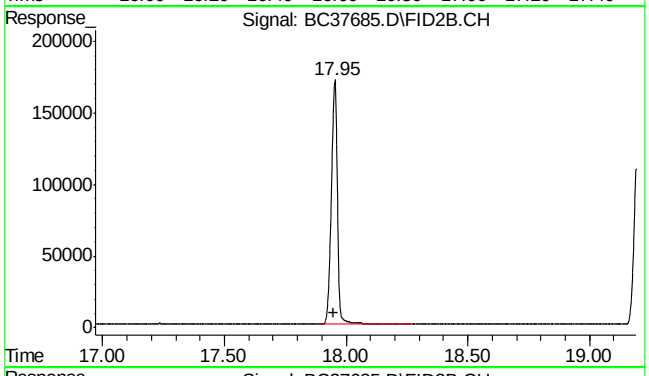
#35 1-chlorooctadecane

R.T.: 15.800 min
Delta R.T.: 0.004 min
Response: 229479
Conc: 50.06 ppm



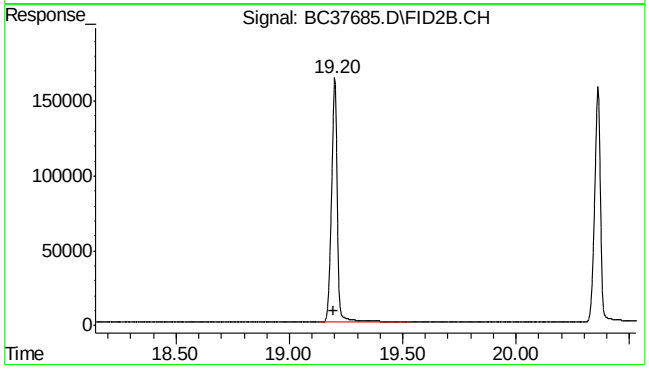
#36 c-22

R.T.: 16.609 min
Delta R.T.: 0.006 min
Response: 292269
Conc: 54.82 ppm



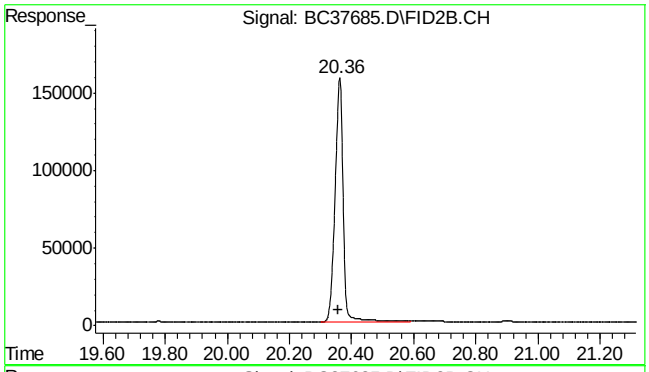
#37 c-24

R.T.: 17.954 min
Delta R.T.: 0.005 min
Response: 294280
Conc: 55.19 ppm



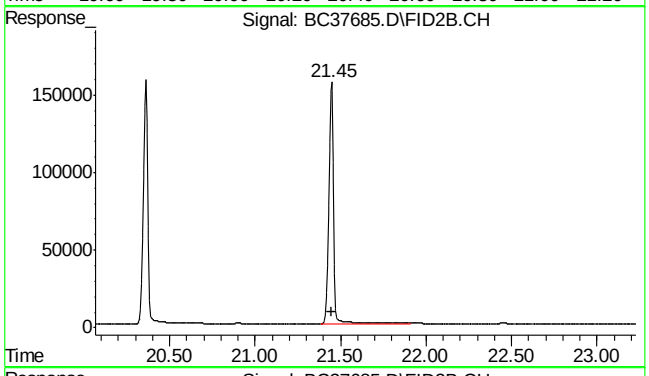
#38 c-26

R.T.: 19.200 min
Delta R.T.: 0.005 min
Response: 290768
Conc: 54.53 ppm



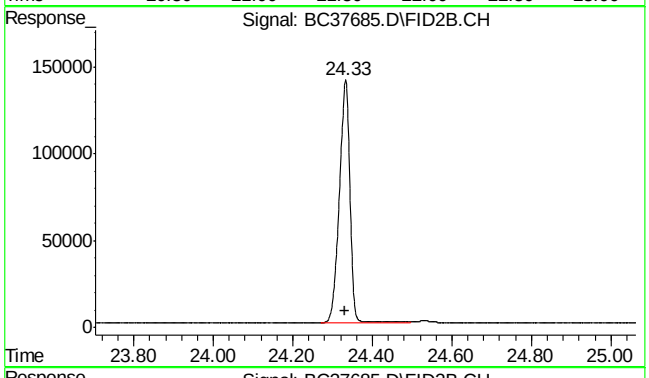
#39 c-28

R.T.: 20.362 min
Delta R.T.: 0.006 min
Response: 286162
Conc: 53.67 ppm



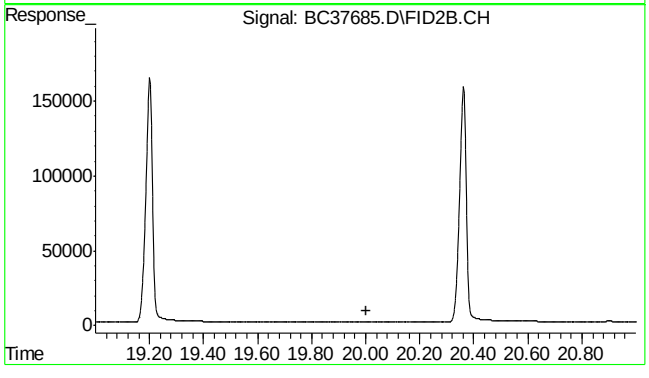
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 293867
Conc: 55.12 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 255302
Conc: 47.88 ppm m

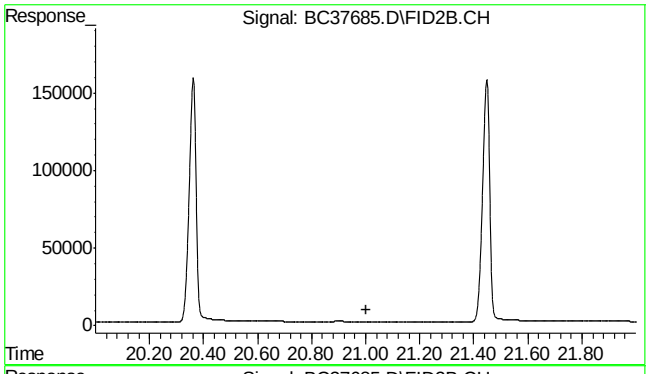


#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.

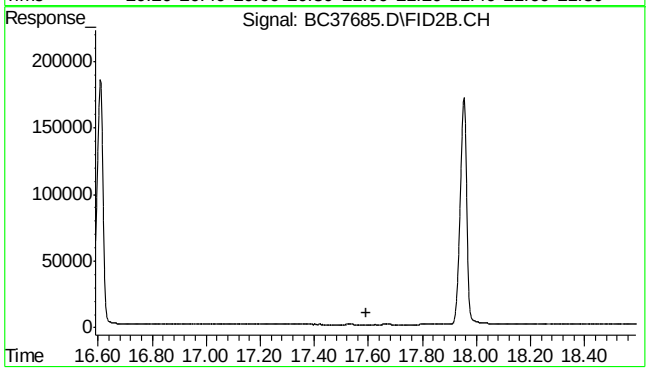
10.5.22

10



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.22

10

ACCUTEST Laboratories F71731

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37696.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37696.D\FID2B.CH
Acq On : 16 Mar 2010 11:07 pm Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20804,gbc1917,11.40,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:21:40 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	294108	49.841 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 249.20%#	
6) s 2-bromonaphthalene	10.46	198102	52.317 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 261.58%#	
11) s o-terphenyl	14.23	347090	48.574 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 242.87%#	
35) s 1-chlorooctadecane	15.80	233213	50.871 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 254.36%#	
Target Compounds			
2) naphthalene	7.29	335485	50.471 ppm
3) 2-methylnaphthalene	8.57	329546	51.256 ppm
5) acenaphthylene	10.22	333033	49.272 ppm
7) acenaphthene	10.58	345645	48.326 ppm
8) fluorene	11.53	333841	51.261 ppm
9) phenanthrene	13.29	337631	51.303 ppm
10) anthracene	13.37	333711	50.578 ppm
12) fluoranthene	15.53	340863	50.269 ppm
13) pyrene	15.92	341779	48.902 ppm
14) benzo(a)anthracene	18.24	318727	59.091 ppm
15) chrysene	18.32	341421	50.423 ppm
16) benzo(b)fluoranthene	20.18	325847	54.550 ppm
17) benzo(k)fluoranthene	20.23	326629	50.342 ppm
18) benzo(a)pyrene	20.69	331780	53.706 ppm
19) indeno(1,2,3-cd)pyrene	22.37	287878	56.001 ppm
20) dibenzo(ah)anthracene	22.44	288571	58.130 ppm
21) benzo(ghi)perylene	22.71	275620	49.786 ppm
25) h c-9	3.81	328640	51.805 ppm
26) h c-10	5.18	330984	52.175 ppm
27) naphthalene #2	7.51	335239	47.771 ppm
28) c-12	7.69	339194	53.469 ppm
29) 2-methylnaphthalene #2	8.77	316512	50.637 ppm
30) c-14	9.87	304182	47.950 ppm
31) c-16	11.81	297499	46.897 ppm
32) c-18	13.56	299112	47.151 ppm
33) c-19	14.37	294216	55.181 ppm
34) c-20	15.15	292465	54.853 ppm
36) c-22	16.61	296954	55.695 ppm
37) c-24	17.95	295696	55.459 ppm
38) c-26	19.20	295095	55.346 ppm
39) c-28	20.36	290292	54.445 ppm
40) h c-30	21.45	299611	56.193 ppm
41) h c-36	24.33	259876	48.741 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37696.D EPH031510.M Wed Mar 17 09:23:58 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37696.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37696.D\FID2B.CH
Acq On    : 16 Mar 2010  11:07 pm                    Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20804,gbc1917,11.40,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:21:40 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.23

10

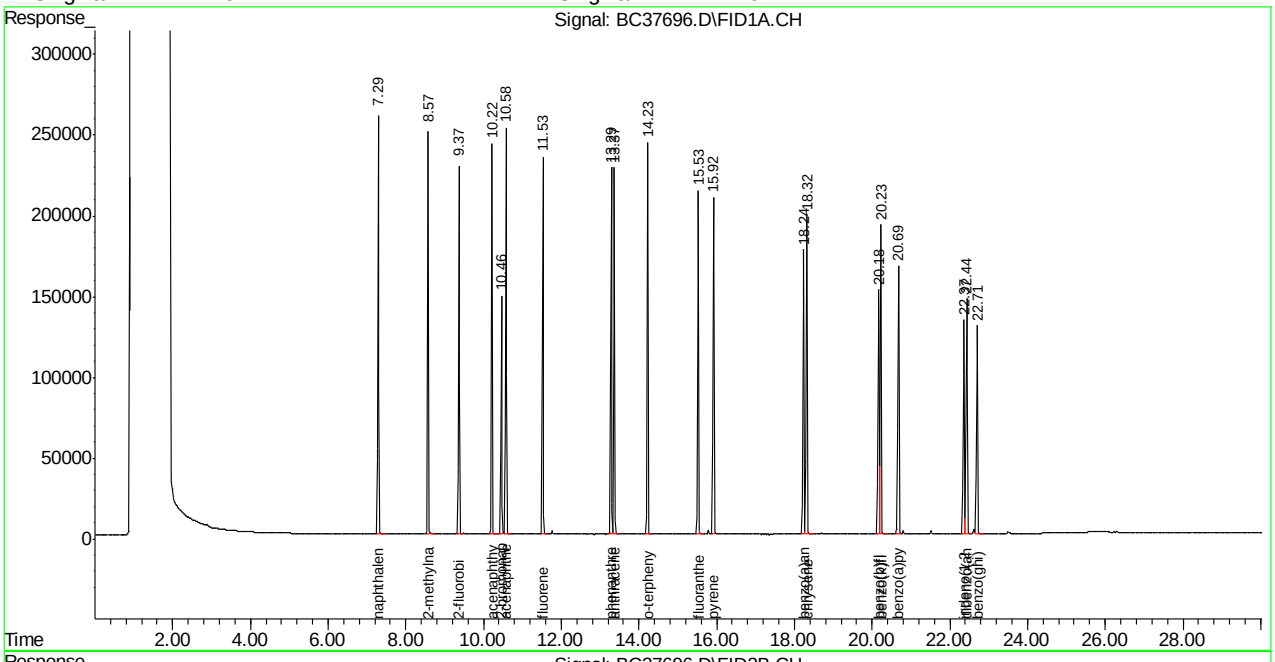
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37696.D  EPH031510.M      Wed Mar 17 09:23:58 2010      RPGEN1
```

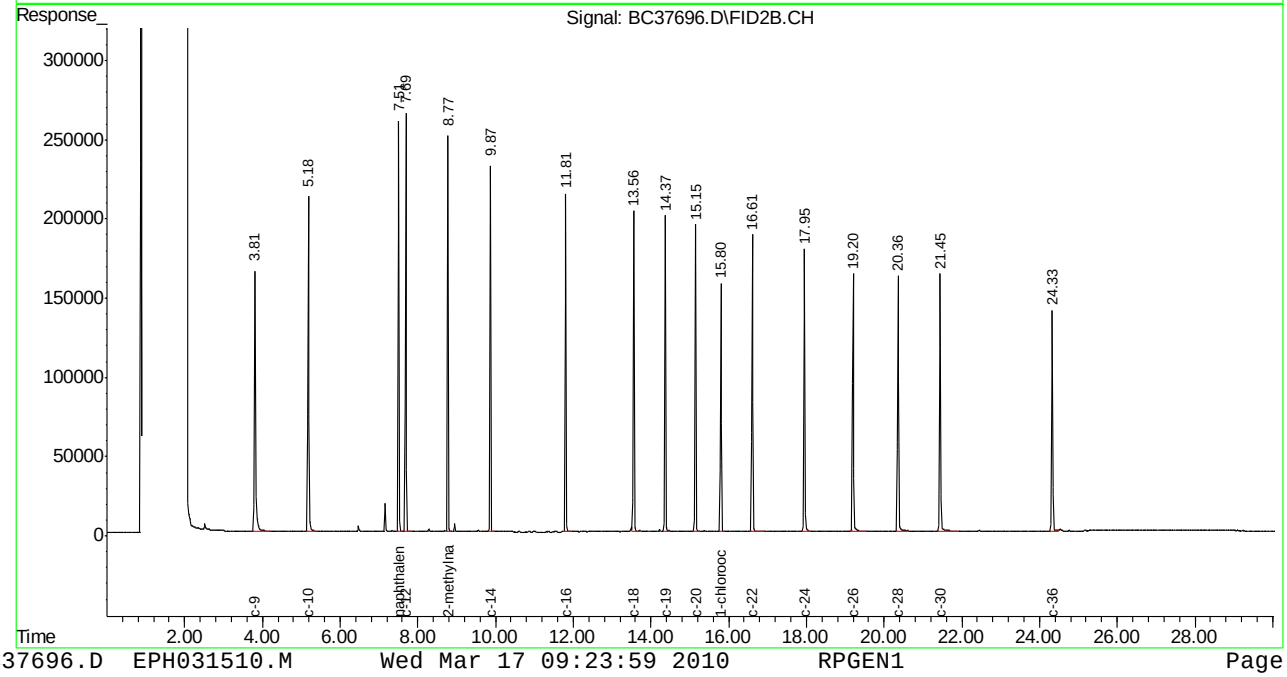
Quantitation Report (QT Reviewed)

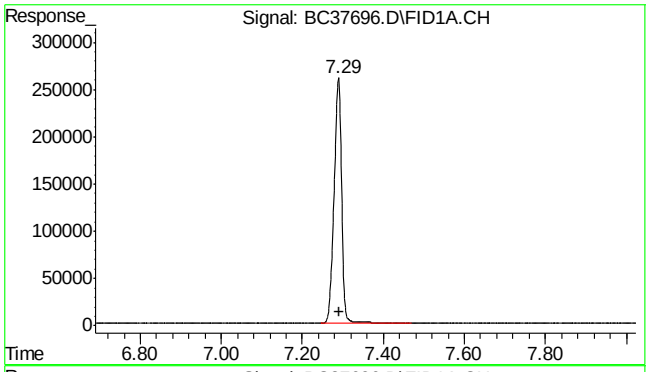
Signal #1 : C:\MSDCHEM\1\DATA\BC37696.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37696.D\FID2B.CH
Acq On : 16 Mar 2010 11:07 pm Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20804,gbc1917,11.40,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:38 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

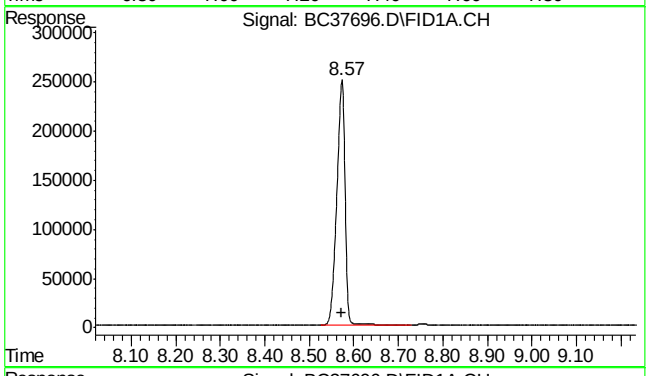






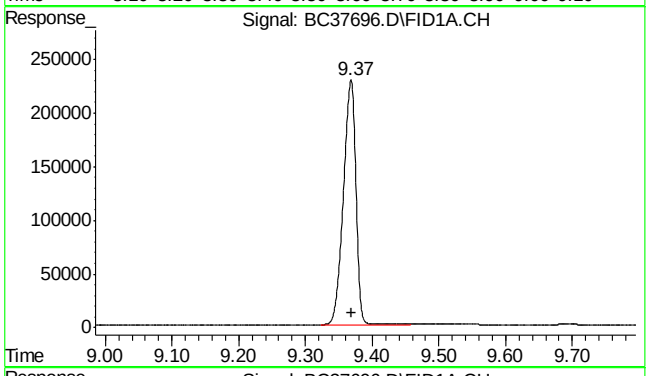
#2 naphthalene

R.T.: 7.289 min
Delta R.T.: 0.000 min
Response: 335485
Conc: 50.47 ppm



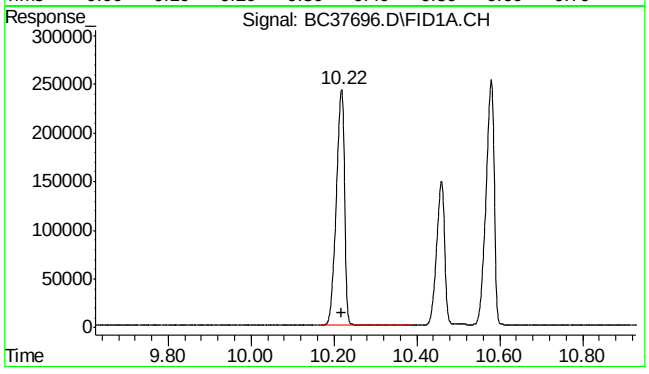
#3 2-methylnaphthalene

R.T.: 8.574 min
Delta R.T.: 0.000 min
Response: 329546
Conc: 51.26 ppm



#4 2-fluorobiphenyl

R.T.: 9.368 min
Delta R.T.: 0.000 min
Response: 294108
Conc: 49.84 ppm



#5 acenaphthylene

R.T.: 10.219 min
Delta R.T.: 0.000 min
Response: 333033
Conc: 49.27 ppm

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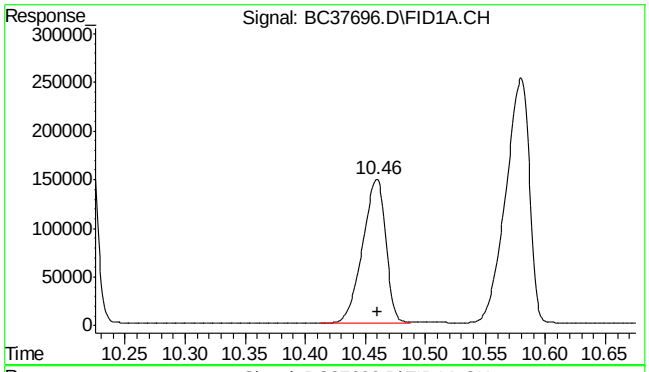
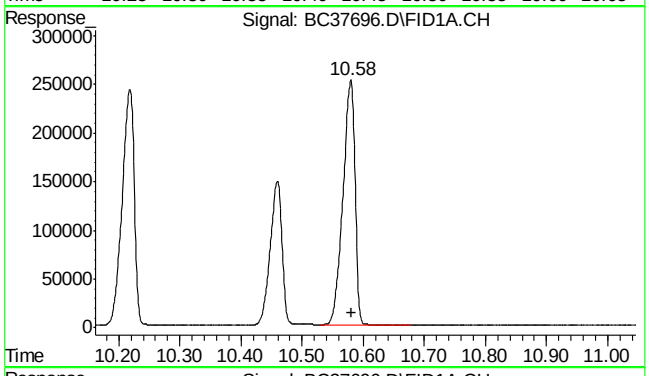


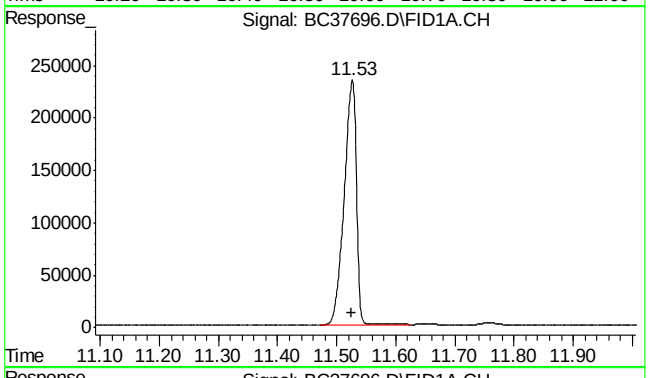
#6 2-bromonaphthalene

R.T.: 10.459 min
Delta R.T.: 0.000 min
Response: 198102
Conc: 52.32 ppm



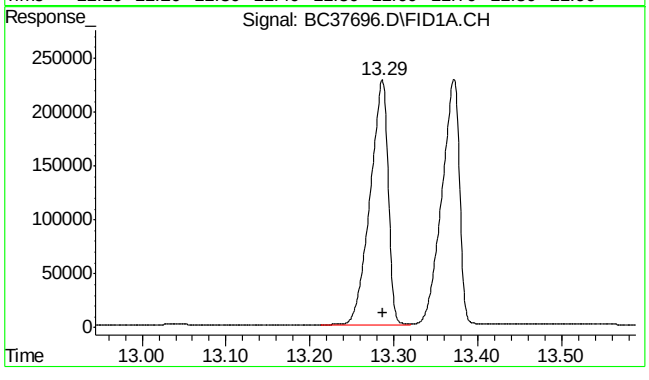
#7 acenaphthene

R.T.: 10.579 min
Delta R.T.: 0.000 min
Response: 345645
Conc: 48.33 ppm



#8 fluorene

R.T.: 11.526 min
Delta R.T.: 0.000 min
Response: 333841
Conc: 51.26 ppm



#9 phenanthrene

R.T.: 13.286 min
Delta R.T.: 0.000 min
Response: 337631
Conc: 51.30 ppm

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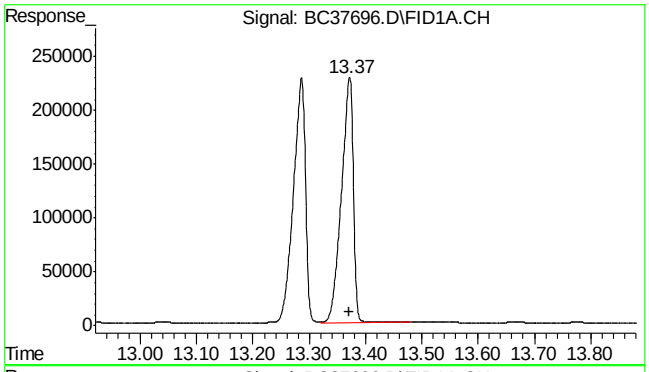
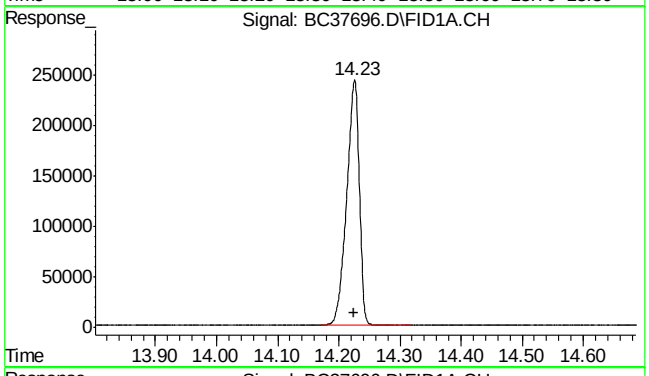


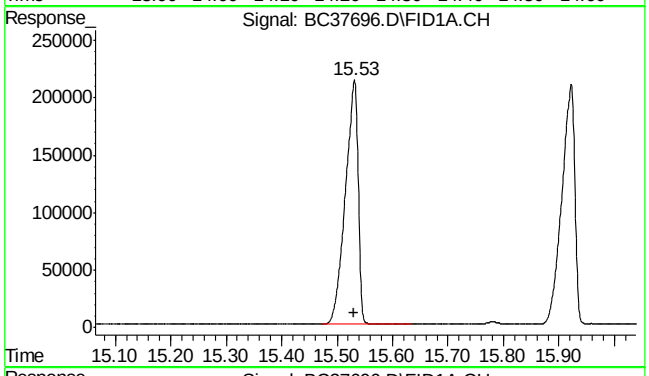
#10 anthracene

R.T.: 13.372 min
Delta R.T.: 0.000 min
Response: 333711
Conc: 50.58 ppm



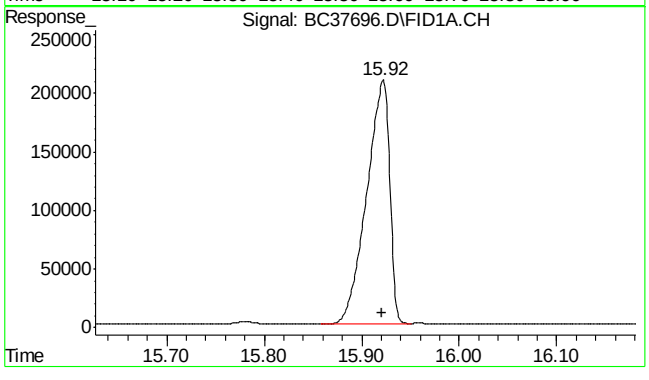
#11 o-terphenyl

R.T.: 14.226 min
Delta R.T.: 0.000 min
Response: 347090
Conc: 48.57 ppm



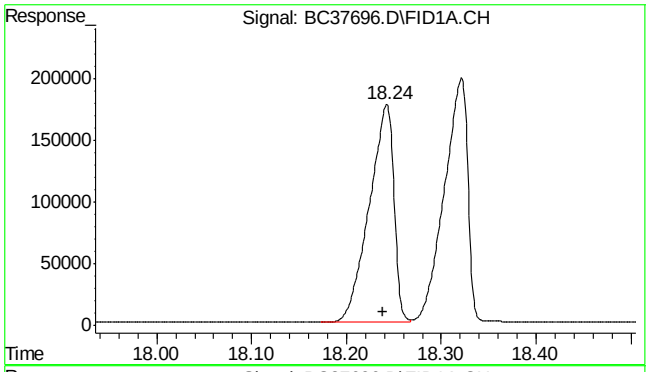
#12 fluoranthene

R.T.: 15.531 min
Delta R.T.: 0.000 min
Response: 340863
Conc: 50.27 ppm



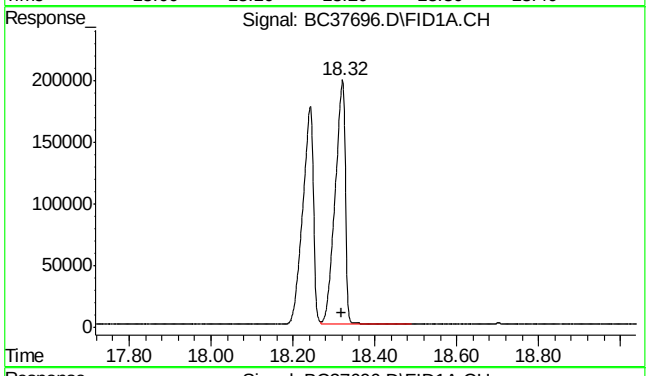
#13 pyrene

R.T.: 15.922 min
Delta R.T.: 0.000 min
Response: 341779
Conc: 48.90 ppm



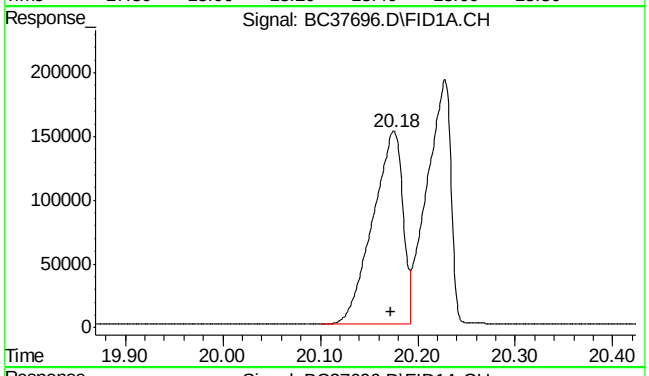
#14 benzo(a)anthracene

R.T.: 18.243 min
Delta R.T.: 0.004 min
Response: 318727
Conc: 59.09 ppm



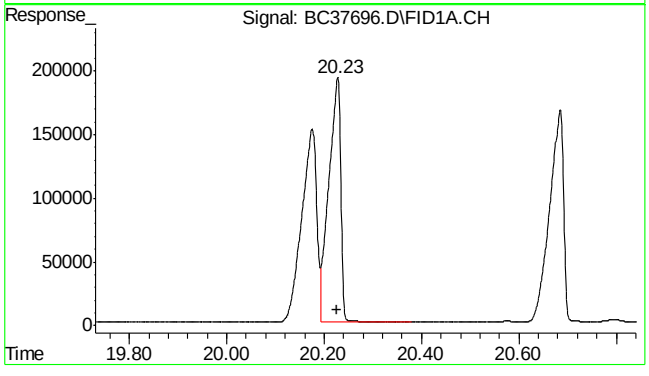
#15 chrysene

R.T.: 18.321 min
Delta R.T.: 0.002 min
Response: 341421
Conc: 50.42 ppm



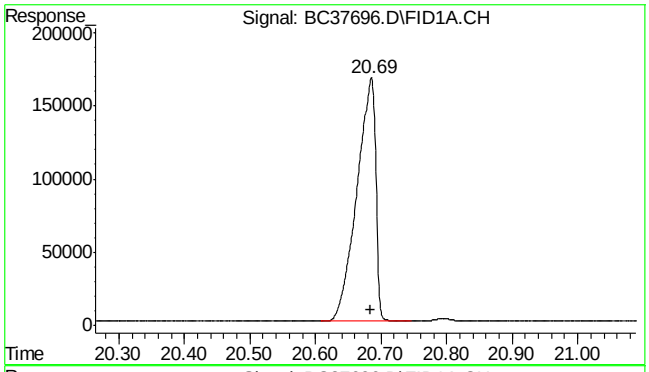
#16 benzo(b)fluoranthene

R.T.: 20.175 min
Delta R.T.: 0.003 min
Response: 325847
Conc: 54.55 ppm



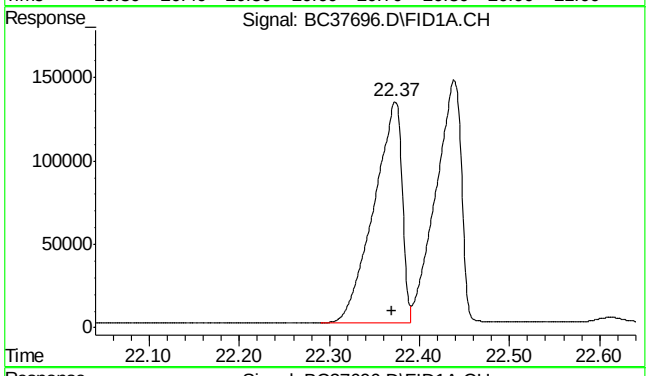
#17 benzo(k)fluoranthene

R.T.: 20.228 min
Delta R.T.: 0.002 min
Response: 326629
Conc: 50.34 ppm



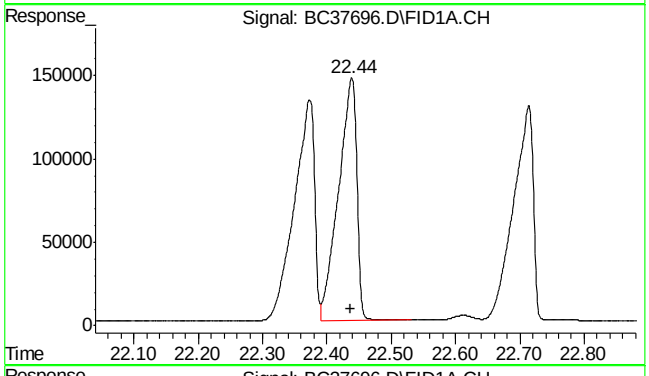
#18 benzo(a)pyrene

R.T.: 20.685 min
Delta R.T.: 0.002 min
Response: 331780
Conc: 53.71 ppm



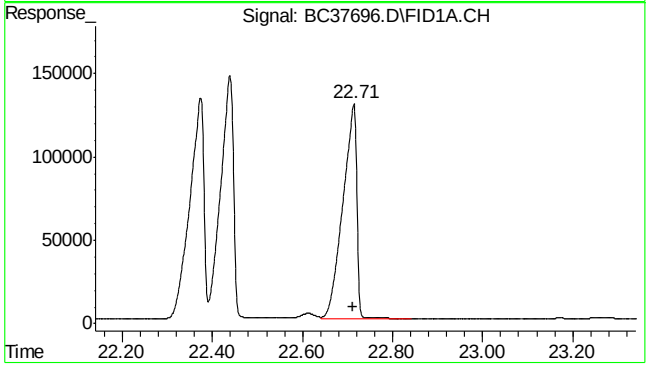
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.372 min
Delta R.T.: 0.002 min
Response: 287878
Conc: 56.00 ppm



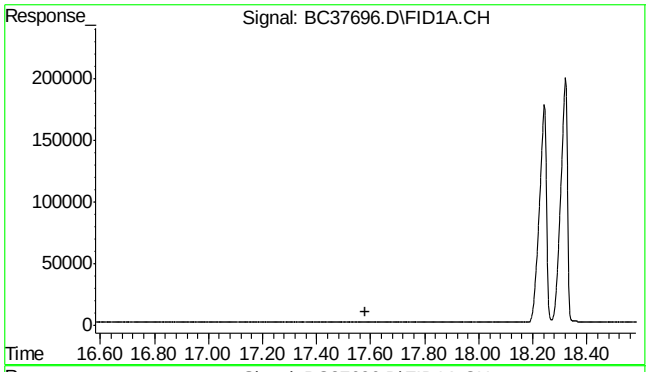
#20 dibenzo(ah)anthracene

R.T.: 22.438 min
Delta R.T.: 0.002 min
Response: 288571
Conc: 58.13 ppm



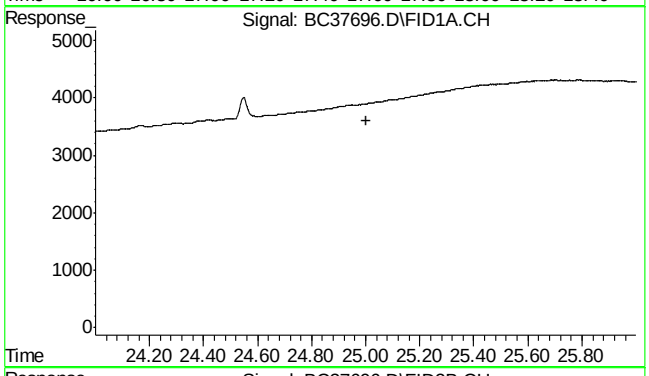
#21 benzo(ghi)perylene

R.T.: 22.714 min
Delta R.T.: 0.003 min
Response: 275620
Conc: 49.79 ppm



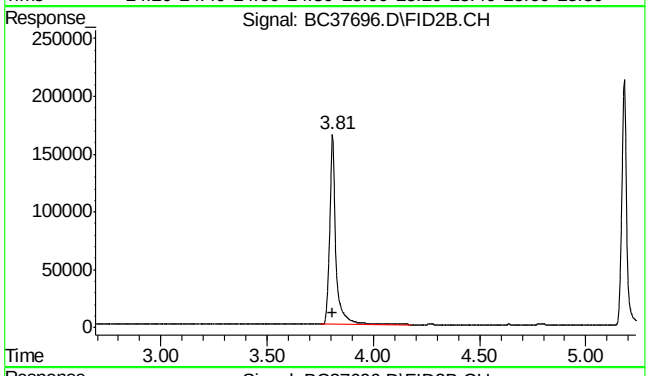
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



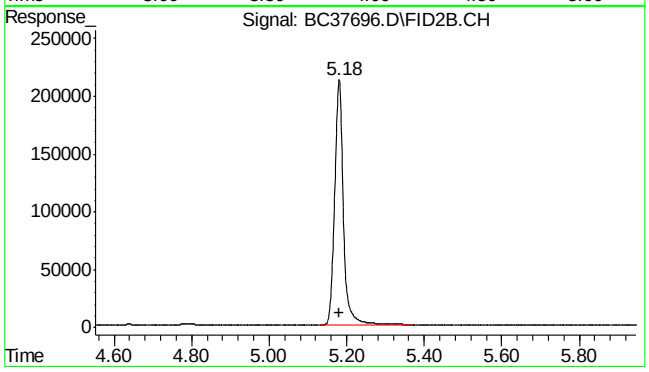
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



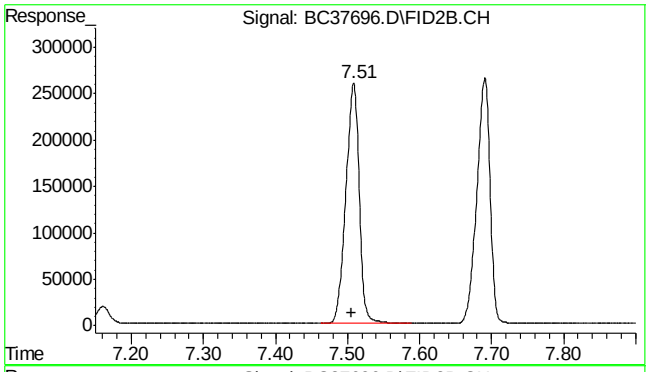
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 328640
Conc: 51.81 ppm m



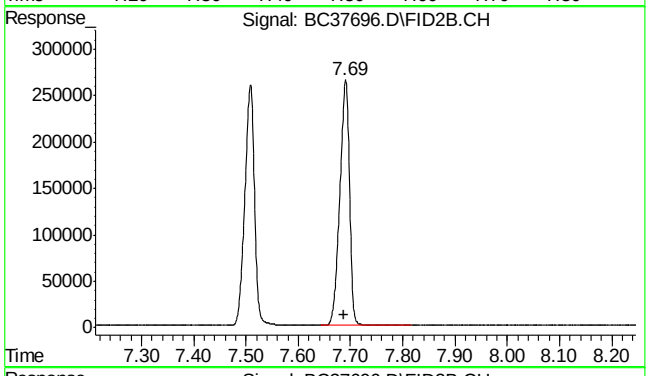
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 330984
Conc: 52.17 ppm m



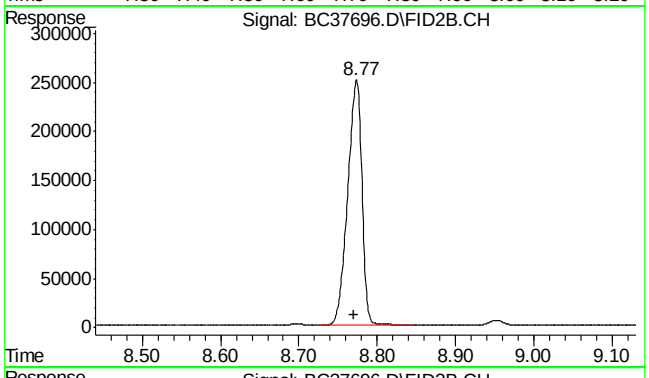
#27 naphthalene #2

R.T.: 7.509 min
Delta R.T.: 0.003 min
Response: 335239
Conc: 47.77 ppm



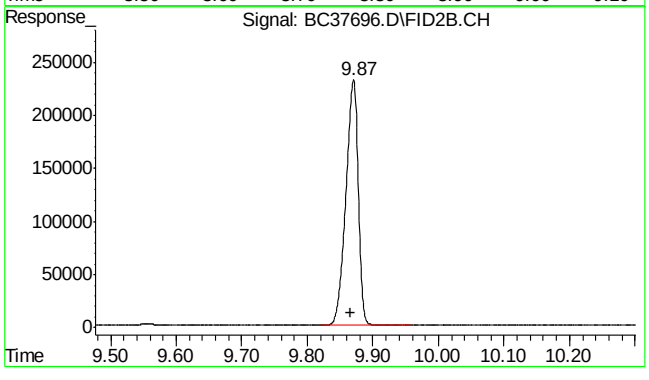
#28 c-12

R.T.: 7.690 min
Delta R.T.: 0.003 min
Response: 339194
Conc: 53.47 ppm



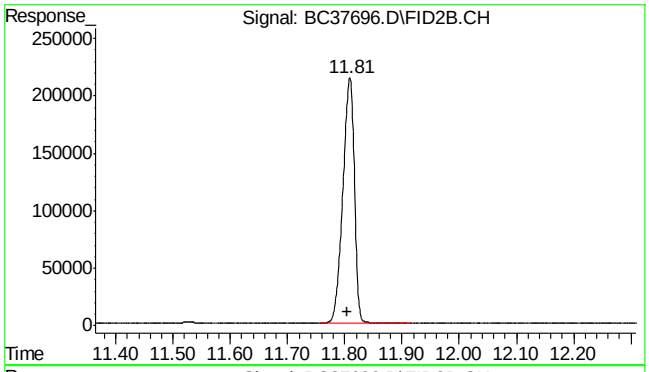
#29 2-methylnaphthalene #2

R.T.: 8.774 min
Delta R.T.: 0.003 min
Response: 316512
Conc: 50.64 ppm



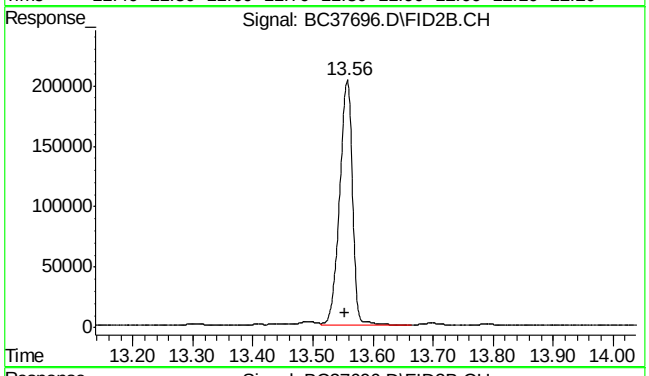
#30 c-14

R.T.: 9.870 min
Delta R.T.: 0.004 min
Response: 304182
Conc: 47.95 ppm



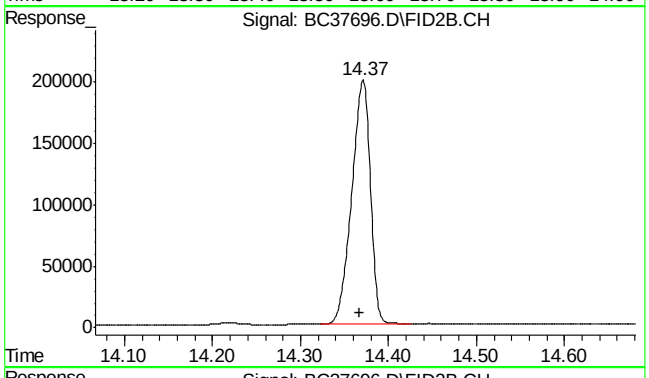
#31 c-16

R.T.: 11.809 min
Delta R.T.: 0.004 min
Response: 297499
Conc: 46.90 ppm



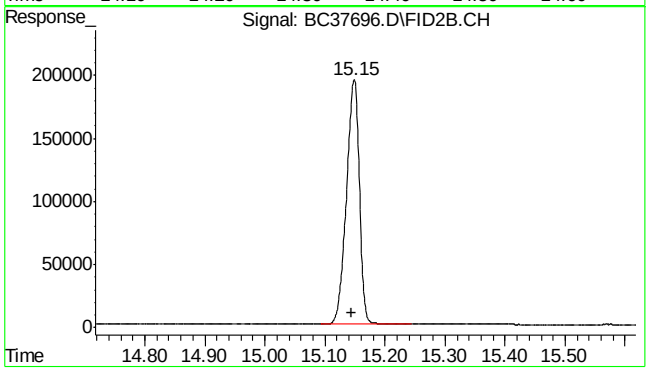
#32 c-18

R.T.: 13.557 min
Delta R.T.: 0.003 min
Response: 299112
Conc: 47.15 ppm



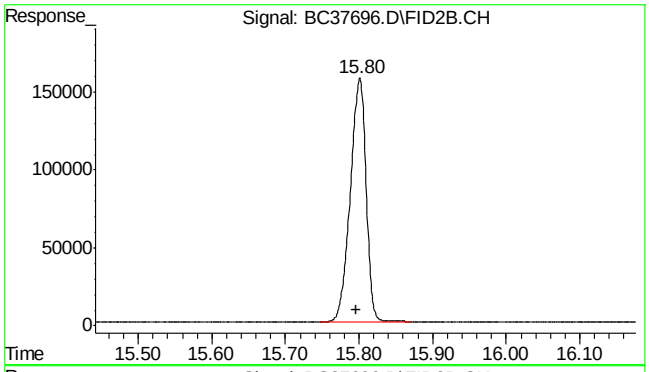
#33 c-19

R.T.: 14.371 min
Delta R.T.: 0.004 min
Response: 294216
Conc: 55.18 ppm



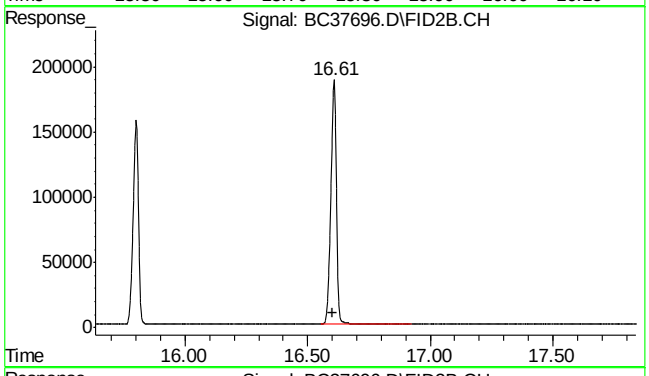
#34 c-20

R.T.: 15.149 min
Delta R.T.: 0.005 min
Response: 292465
Conc: 54.85 ppm



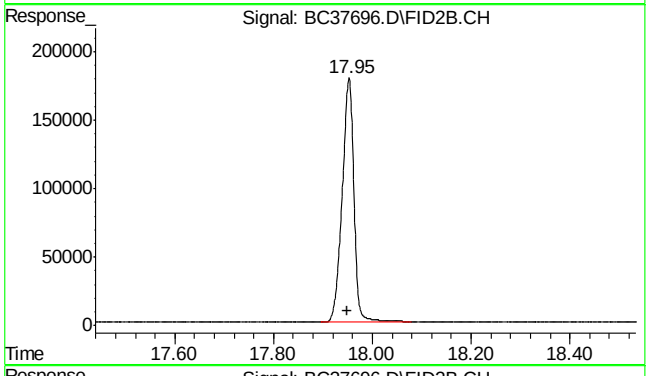
#35 1-chlorooctadecane

R.T.: 15.801 min
Delta R.T.: 0.005 min
Response: 233213
Conc: 50.87 ppm



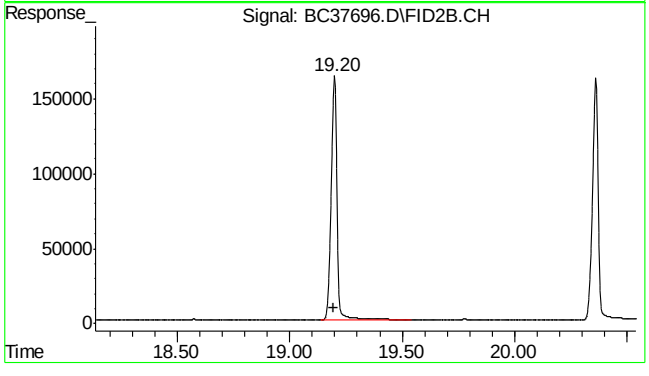
#36 c-22

R.T.: 16.608 min
Delta R.T.: 0.005 min
Response: 296954
Conc: 55.69 ppm



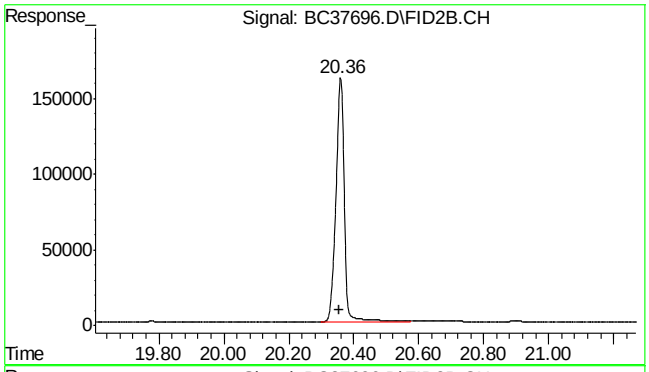
#37 c-24

R.T.: 17.953 min
Delta R.T.: 0.004 min
Response: 295696
Conc: 55.46 ppm



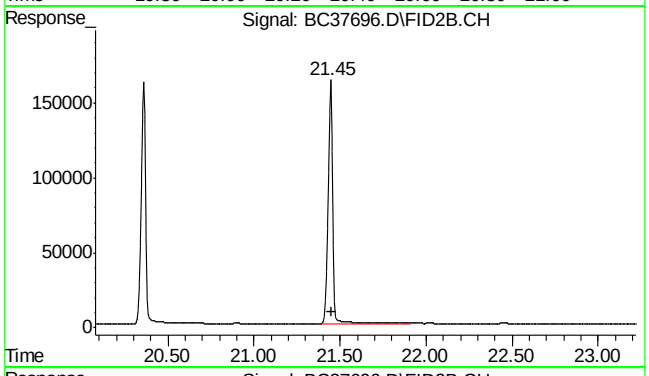
#38 c-26

R.T.: 19.199 min
Delta R.T.: 0.004 min
Response: 295095
Conc: 55.35 ppm



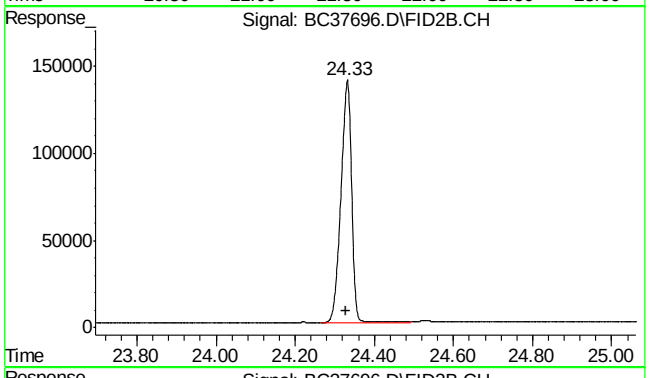
#39 c-28

R.T.: 20.359 min
Delta R.T.: 0.003 min
Response: 290292
Conc: 54.45 ppm



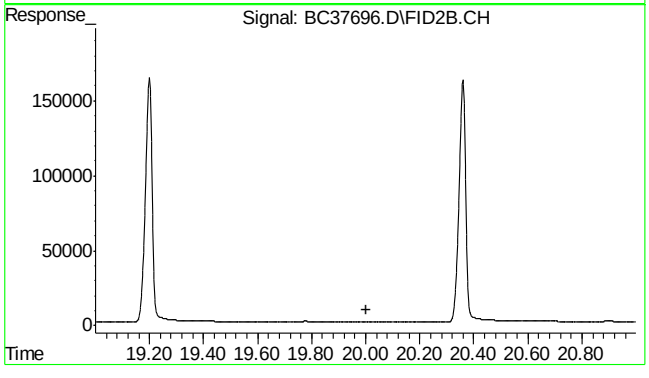
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 299611
Conc: 56.19 ppm m



#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 259876
Conc: 48.74 ppm m

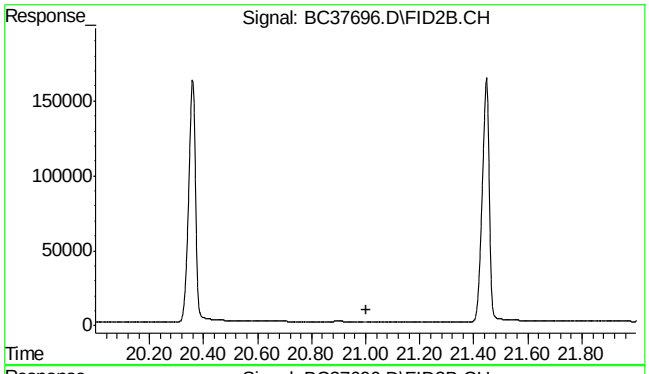


#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.

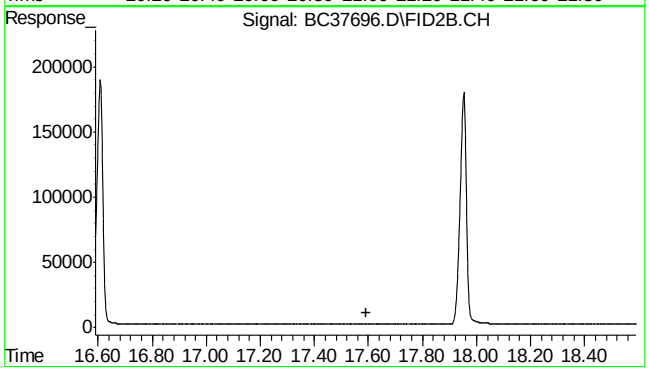
10.5.23

10



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.23

10

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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37705.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37705.D\FID2B.CH
Acq On : 3-17-10 05:03:15 AM Operator: KimD
Sample : ecc1915-50 Inst : GCBC
Misc : op20791,gbc1917,11.05,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:24:00 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	284455	48.205 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 241.03%#	
6) s 2-bromonaphthalene	10.46	191932	50.687 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 253.44%#	
11) s o-terphenyl	14.22	335796	46.993 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 234.97%#	
35) s 1-chlorooctadecane	15.80	229176	49.990 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 249.95%#	
Target Compounds			
2) naphthalene	7.29	323519	48.671 ppm
3) 2-methylnaphthalene	8.57	318419	49.525 ppm
5) acenaphthylene	10.22	322293	47.683 ppm
7) acenaphthene	10.58	334277	46.736 ppm
8) fluorene	11.53	323622	49.691 ppm
9) phenanthrene	13.29	326635	49.632 ppm
10) anthracene	13.37	322632	48.899 ppm
12) fluoranthene	15.53	328455	48.440 ppm
13) pyrene	15.92	329423	47.134 ppm
14) benzo(a)anthracene	18.24	306980	56.913 ppm
15) chrysene	18.32	329173	48.614 ppm
16) benzo(b)fluoranthene	20.17	310867	52.043 ppm
17) benzo(k)fluoranthene	20.23	318317	49.061 ppm
18) benzo(a)pyrene	20.68	320063	51.809 ppm
19) indeno(1,2,3-cd)pyrene	22.37	280562	54.578 ppm
20) dibenzo(ah)anthracene	22.44	280793	56.563 ppm
21) benzo(ghi)perylene	22.71	270673	48.892 ppm
25) h c-9	3.81	321848	50.735 ppm
26) h c-10	5.18	325093	51.246 ppm
27) naphthalene #2	7.51	328549	46.818 ppm
28) c-12	7.69	335131	52.829 ppm
29) 2-methylnaphthalene #2	8.77	310672	49.703 ppm
30) c-14	9.87	301654	47.552 ppm
31) c-16	11.81	294899	46.487 ppm
32) c-18	13.56	295816	46.631 ppm
33) c-19	14.37	290421	54.470 ppm
34) c-20	15.15	288507	54.111 ppm
36) c-22	16.61	291554	54.682 ppm
37) c-24	17.95	293119	54.976 ppm
38) c-26	19.20	290368	54.460 ppm
39) c-28	20.36	290735	54.528 ppm
40) h c-30	21.45	298821	56.045 ppm
41) h c-36	24.33	262103	49.158 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37705.D EPH031510.M Wed Mar 17 09:25:19 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37705.D\FID1A.CH         Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37705.D\FID2B.CH
Acq On    : 3-17-10 05:03:15 AM                      Operator: KimD
Sample    : ecc1915-50                               Inst    : GCBC
Misc      : op20791,gbc1917,11.05,,,2,,              Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 08:24:00 2010  Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.24

10

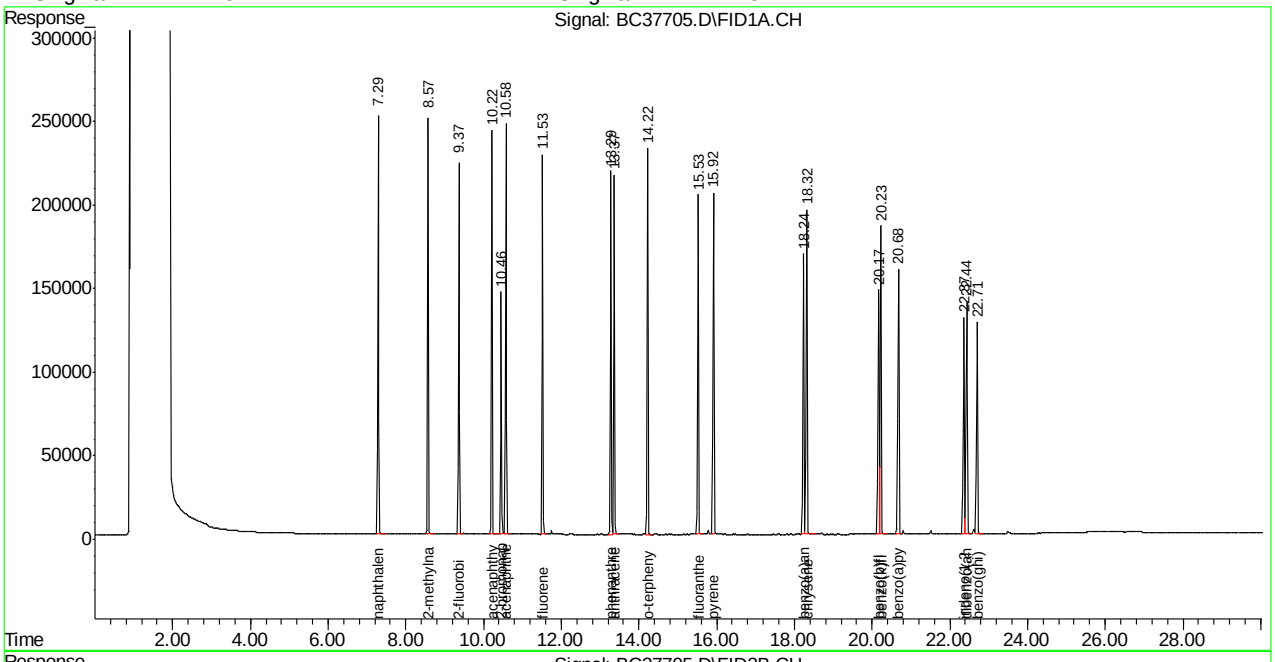
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37705.D  EPH031510.M      Wed Mar 17 09:25:19 2010      RPGEN1
```

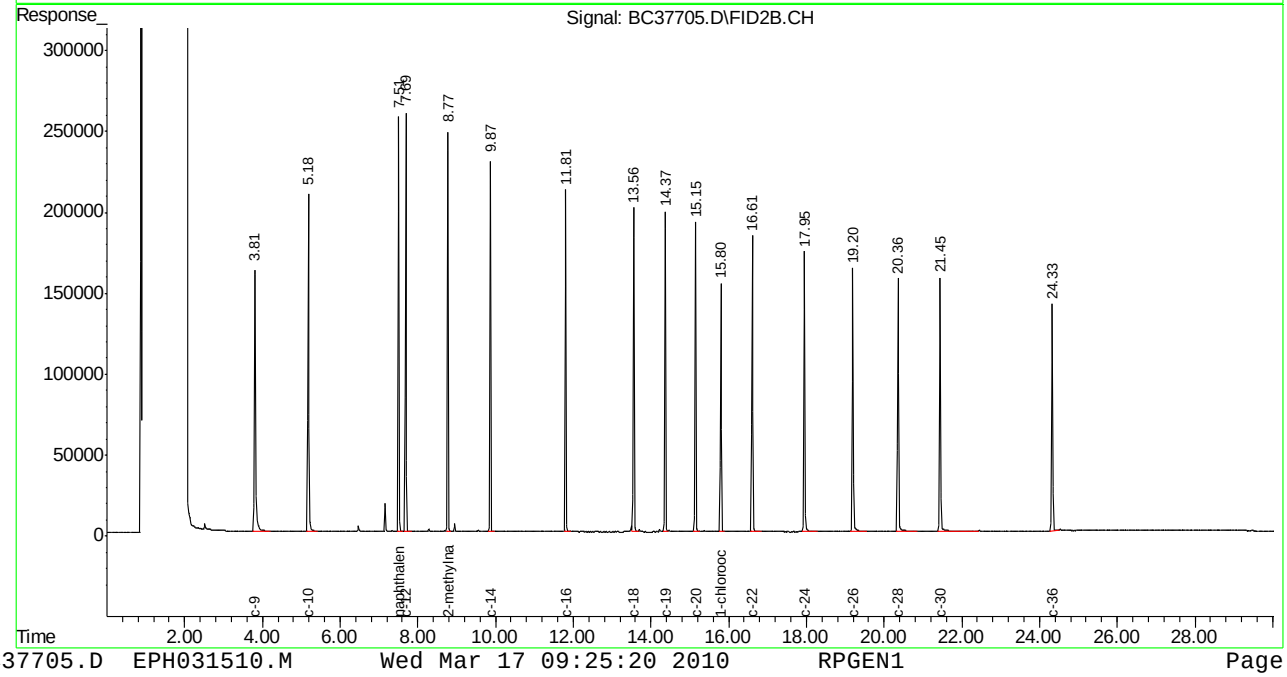
Quantitation Report (QT Reviewed)

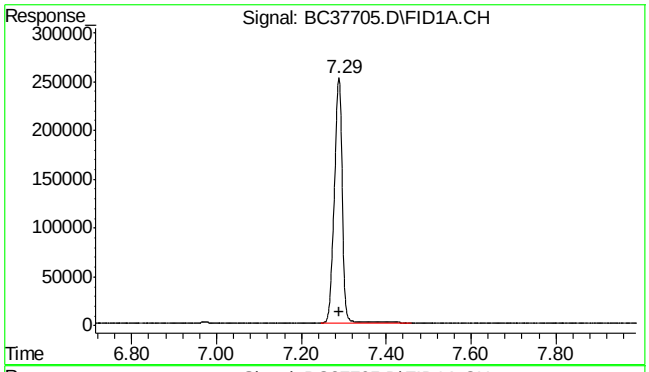
Signal #1 : C:\MSDCHEM\1\DATA\BC37705.D\FID1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\BC37705.D\FID2B.CH
Acq On : 3-17-10 05:03:15 AM Operator: KimD
Sample : ecc1915-50 Inst : GCBC
Misc : op20791,gbc1917,11.05,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 8:36 2010 Quant Results File: EPH031510.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031510.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

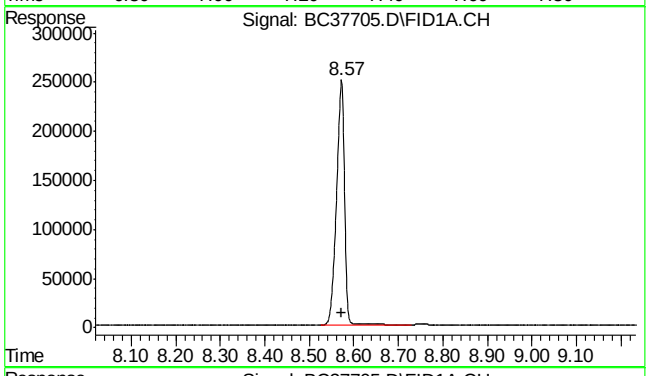






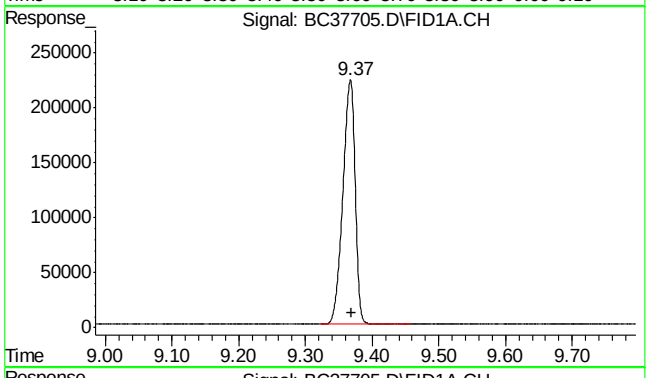
#2 naphthalene

R.T.: 7.289 min
Delta R.T.: -0.002 min
Response: 323519
Conc: 48.67 ppm



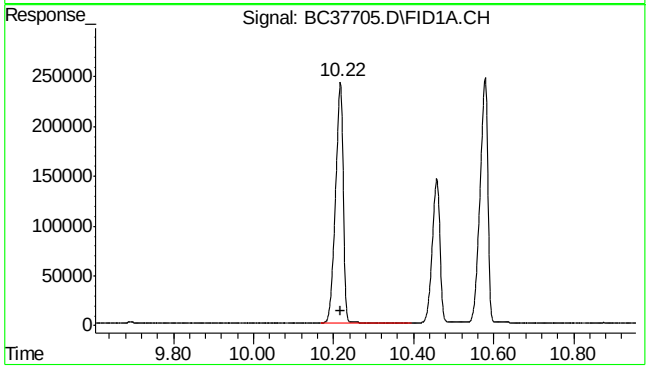
#3 2-methylnaphthalene

R.T.: 8.572 min
Delta R.T.: -0.002 min
Response: 318419
Conc: 49.53 ppm



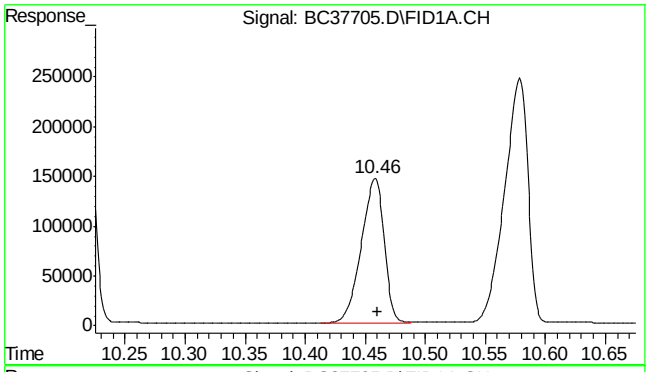
#4 2-fluorobiphenyl

R.T.: 9.367 min
Delta R.T.: -0.002 min
Response: 284455
Conc: 48.20 ppm



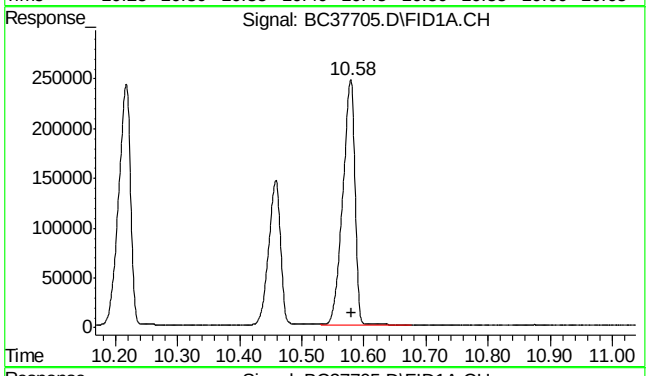
#5 acenaphthylene

R.T.: 10.217 min
Delta R.T.: -0.002 min
Response: 322293
Conc: 47.68 ppm



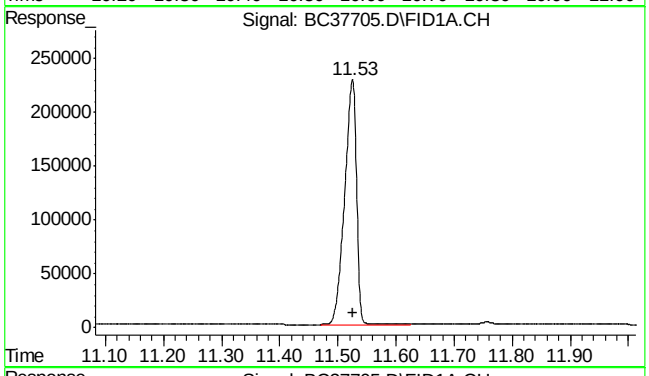
#6 2-bromonaphthalene

R.T.: 10.458 min
Delta R.T.: -0.002 min
Response: 191932
Conc: 50.69 ppm



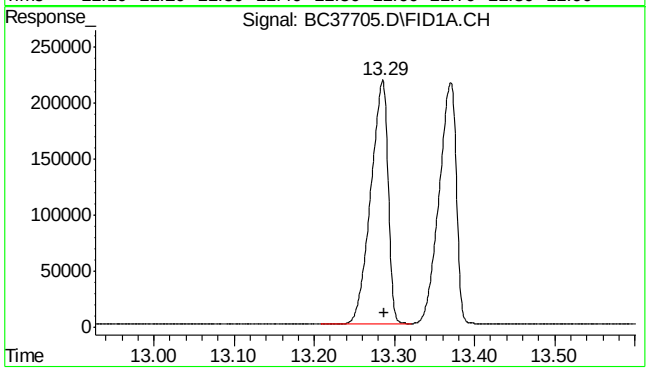
#7 acenaphthene

R.T.: 10.579 min
Delta R.T.: -0.002 min
Response: 334277
Conc: 46.74 ppm



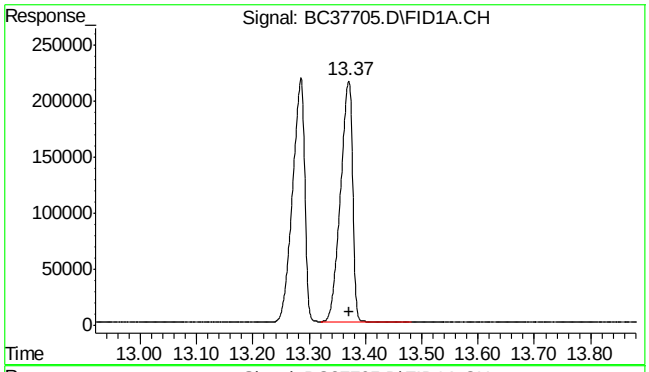
#8 fluorene

R.T.: 11.525 min
Delta R.T.: 0.000 min
Response: 323622
Conc: 49.69 ppm



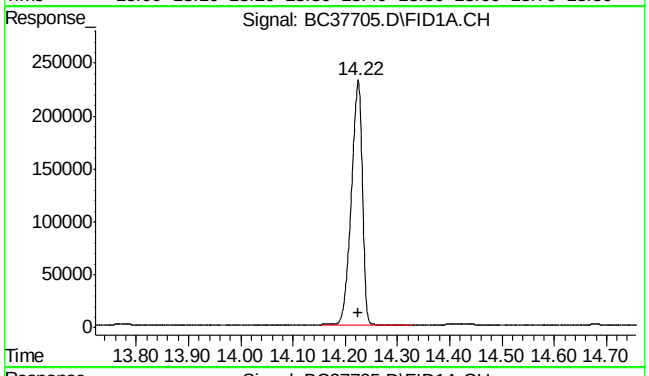
#9 phenanthrene

R.T.: 13.285 min
Delta R.T.: -0.002 min
Response: 326635
Conc: 49.63 ppm



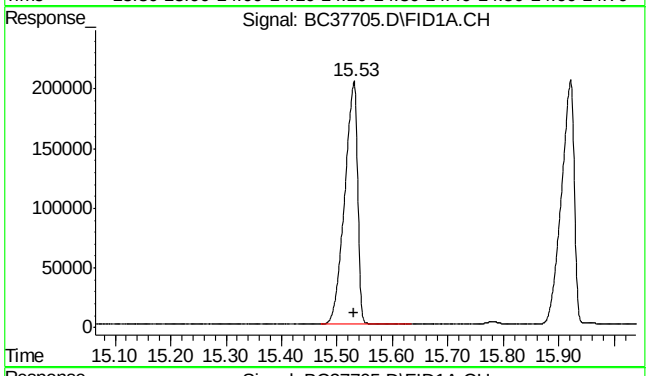
#10 anthracene

R.T.: 13.370 min
Delta R.T.: -0.002 min
Response: 322632
Conc: 48.90 ppm



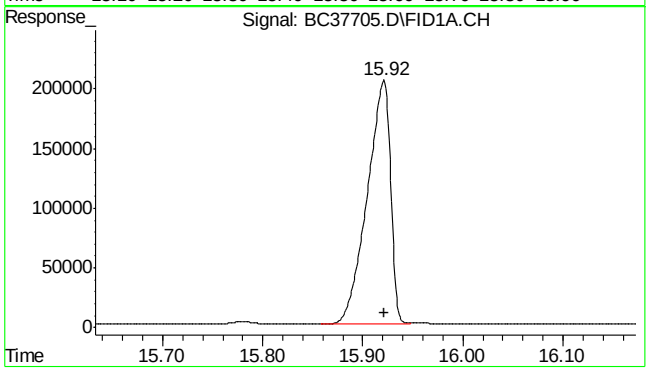
#11 o-terphenyl

R.T.: 14.225 min
Delta R.T.: 0.000 min
Response: 335796
Conc: 46.99 ppm



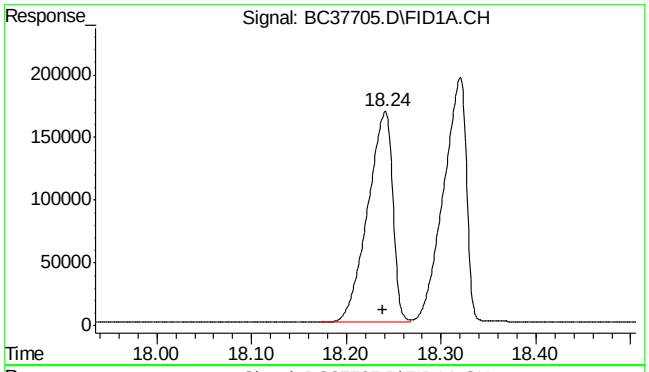
#12 fluoranthene

R.T.: 15.530 min
Delta R.T.: 0.000 min
Response: 328455
Conc: 48.44 ppm



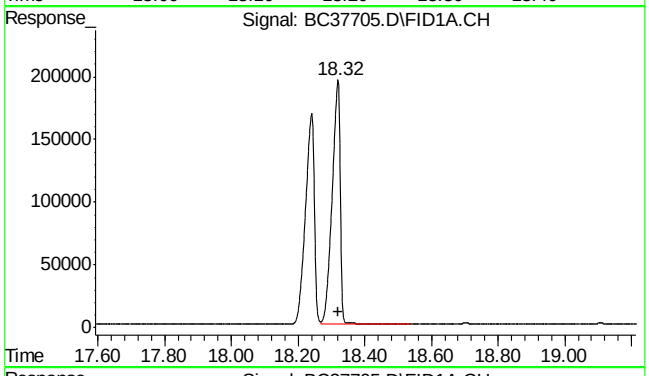
#13 pyrene

R.T.: 15.921 min
Delta R.T.: 0.000 min
Response: 329423
Conc: 47.13 ppm



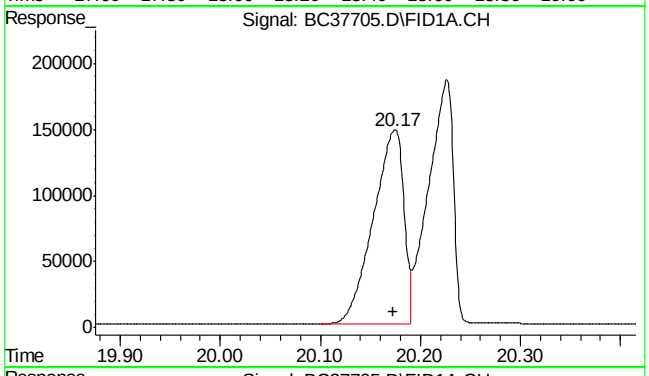
#14 benzo(a)anthracene

R.T.: 18.241 min
Delta R.T.: 0.002 min
Response: 306980
Conc: 56.91 ppm



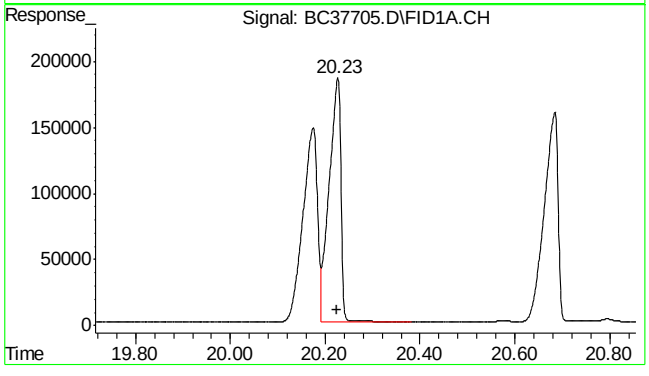
#15 chrysene

R.T.: 18.320 min
Delta R.T.: 0.000 min
Response: 329173
Conc: 48.61 ppm



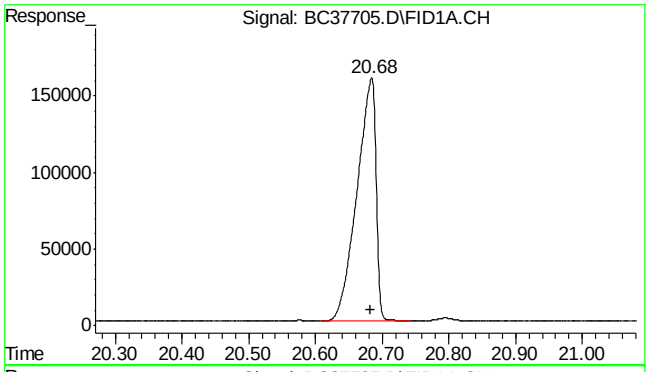
#16 benzo(b)fluoranthene

R.T.: 20.175 min
Delta R.T.: 0.002 min
Response: 310867
Conc: 52.04 ppm



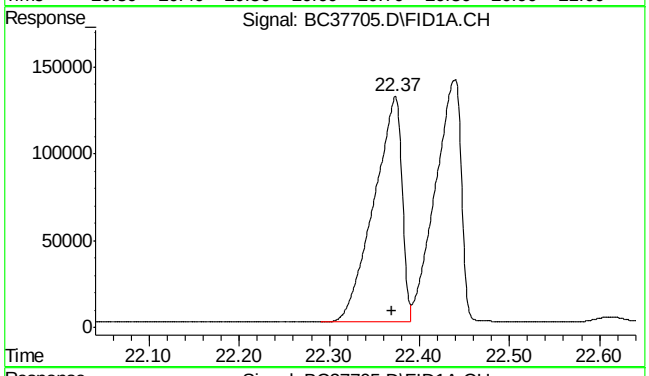
#17 benzo(k)fluoranthene

R.T.: 20.226 min
Delta R.T.: 0.000 min
Response: 318317
Conc: 49.06 ppm



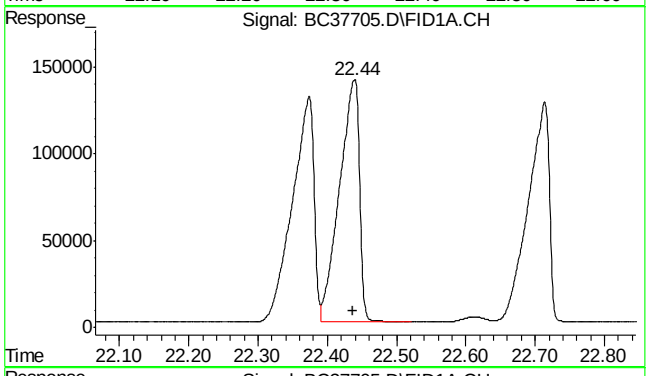
#18 benzo(a)pyrene

R.T.: 20.685 min
Delta R.T.: 0.000 min
Response: 320063
Conc: 51.81 ppm



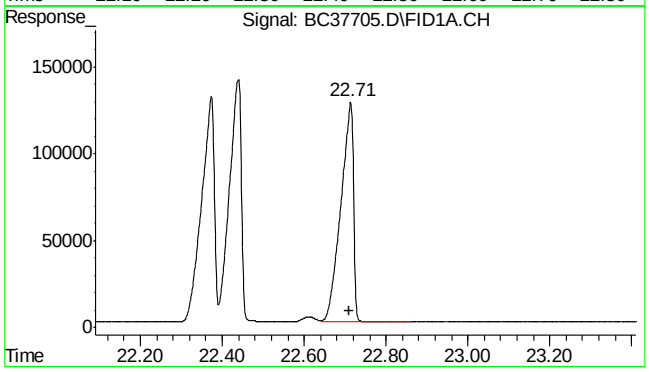
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.373 min
Delta R.T.: 0.003 min
Response: 280562
Conc: 54.58 ppm



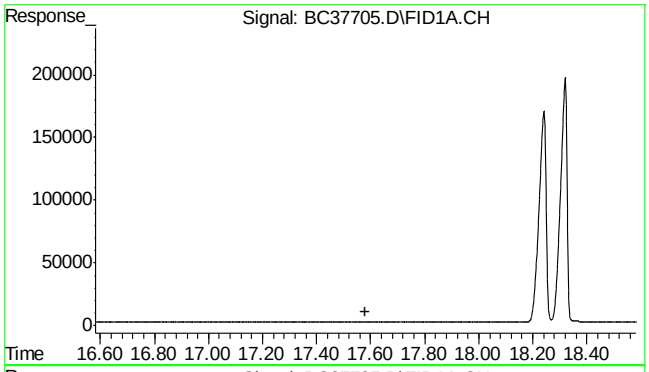
#20 dibenzo(ah)anthracene

R.T.: 22.440 min
Delta R.T.: 0.004 min
Response: 280793
Conc: 56.56 ppm



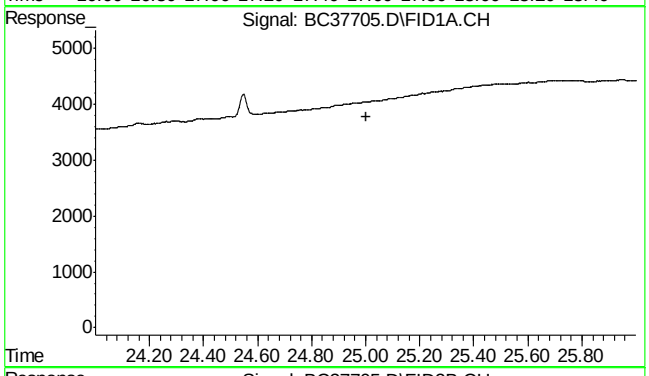
#21 benzo(ghi)perylene

R.T.: 22.713 min
Delta R.T.: 0.002 min
Response: 270673
Conc: 48.89 ppm



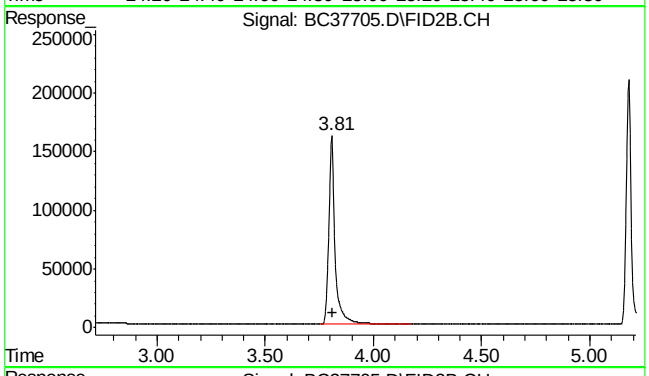
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



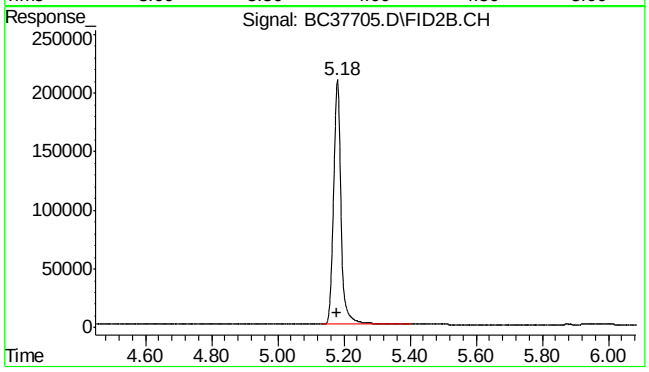
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



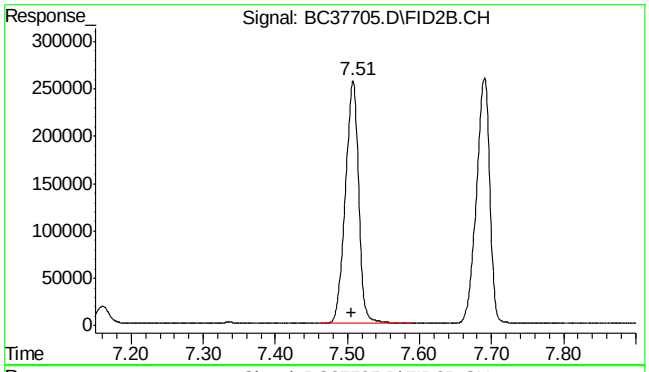
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 321848
Conc: 50.73 ppm m



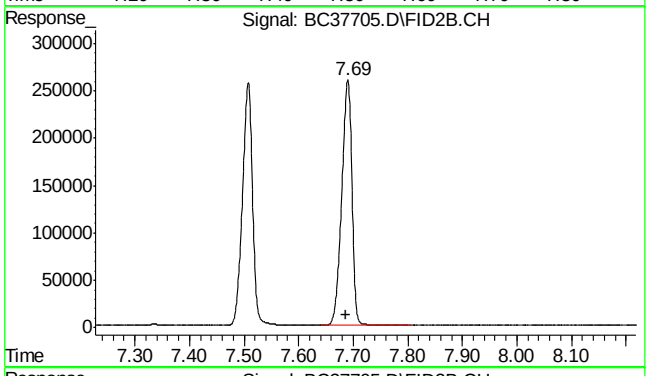
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 325093
Conc: 51.25 ppm m



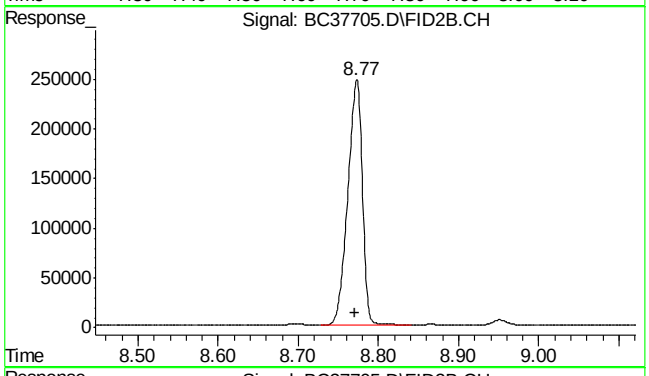
#27 naphthalene #2

R.T.: 7.508 min
Delta R.T.: 0.002 min
Response: 328549
Conc: 46.82 ppm



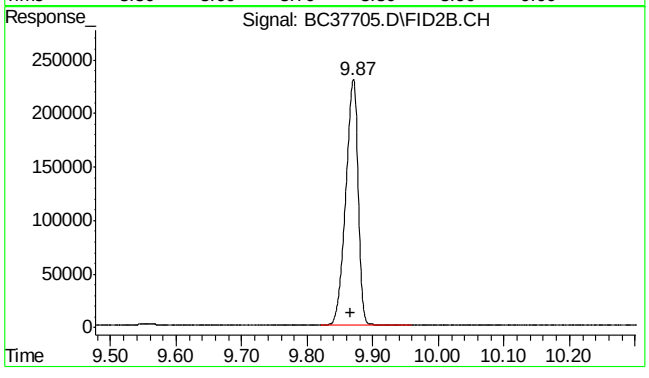
#28 c-12

R.T.: 7.690 min
Delta R.T.: 0.003 min
Response: 335131
Conc: 52.83 ppm



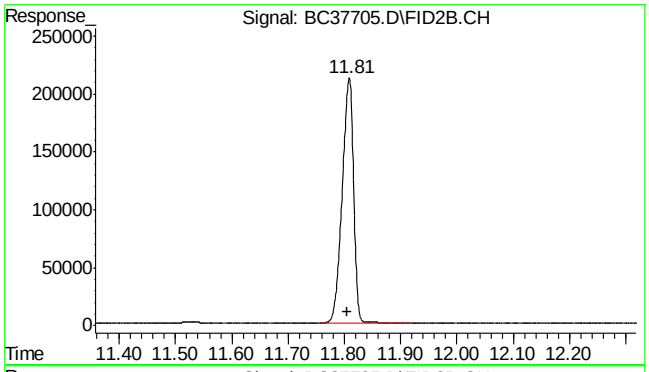
#29 2-methylnaphthalene #2

R.T.: 8.773 min
Delta R.T.: 0.003 min
Response: 310672
Conc: 49.70 ppm



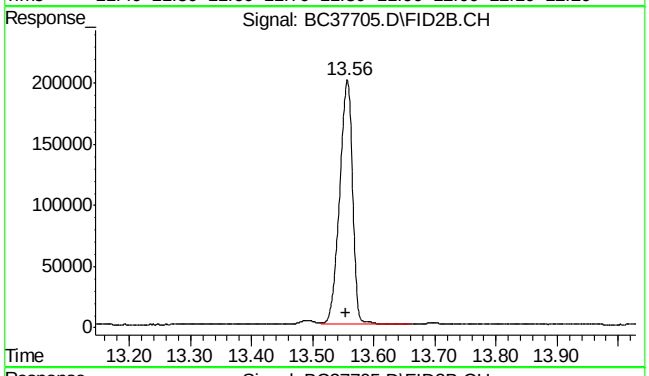
#30 c-14

R.T.: 9.870 min
Delta R.T.: 0.003 min
Response: 301654
Conc: 47.55 ppm



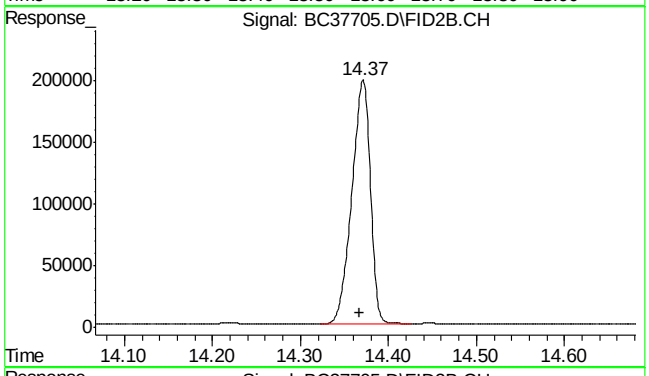
#31 c-16

R.T.: 11.809 min
Delta R.T.: 0.004 min
Response: 294899
Conc: 46.49 ppm



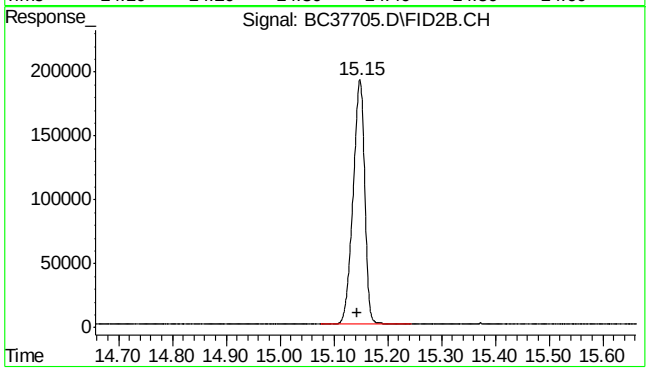
#32 c-18

R.T.: 13.556 min
Delta R.T.: 0.003 min
Response: 295816
Conc: 46.63 ppm



#33 c-19

R.T.: 14.371 min
Delta R.T.: 0.004 min
Response: 290421
Conc: 54.47 ppm



#34 c-20

R.T.: 15.148 min
Delta R.T.: 0.004 min
Response: 288507
Conc: 54.11 ppm

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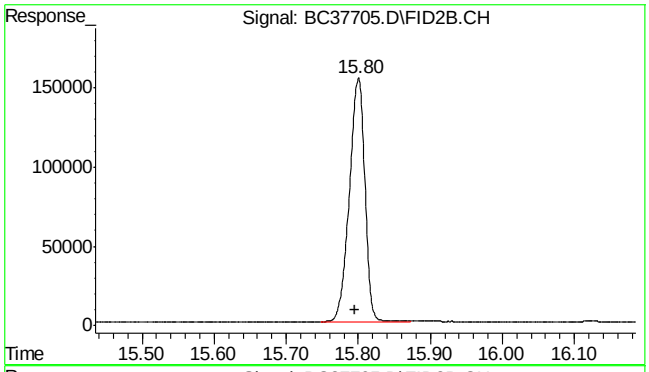
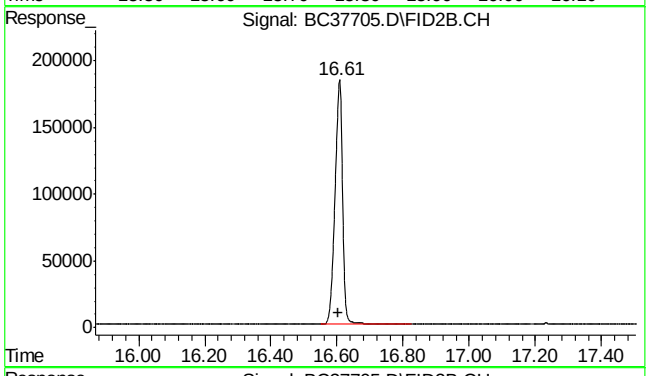


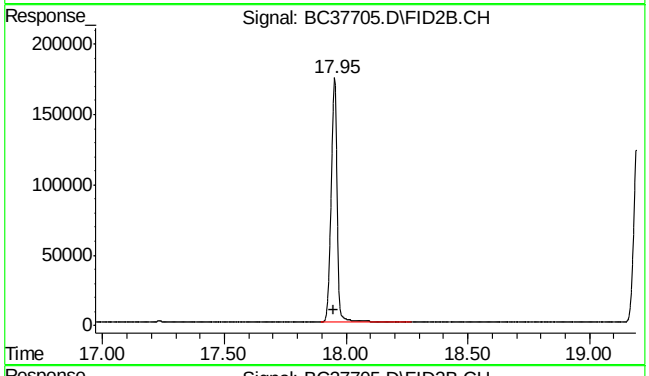
#35 1-chlorooctadecane

R.T.: 15.800 min
Delta R.T.: 0.004 min
Response: 229176
Conc: 49.99 ppm



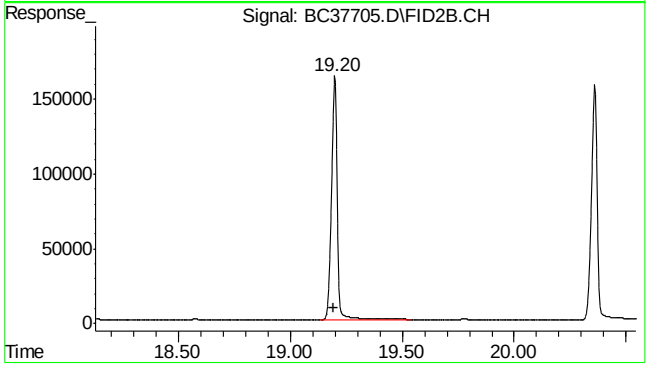
#36 c-22

R.T.: 16.607 min
Delta R.T.: 0.004 min
Response: 291554
Conc: 54.68 ppm



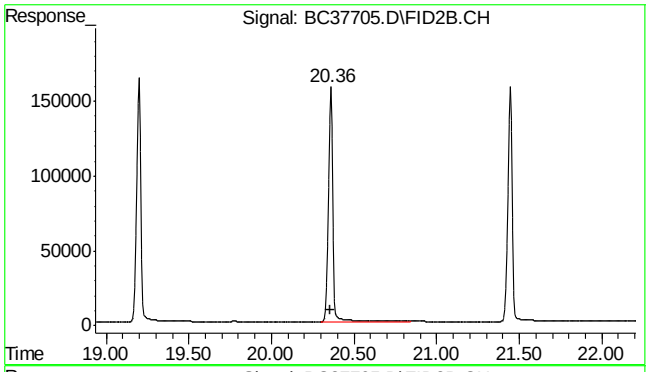
#37 c-24

R.T.: 17.953 min
Delta R.T.: 0.004 min
Response: 293119
Conc: 54.98 ppm



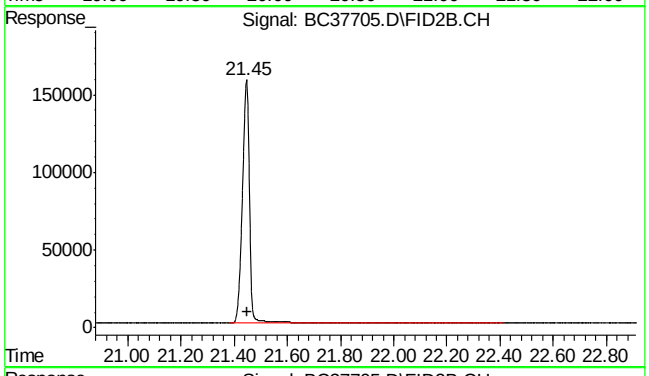
#38 c-26

R.T.: 19.199 min
Delta R.T.: 0.003 min
Response: 290368
Conc: 54.46 ppm



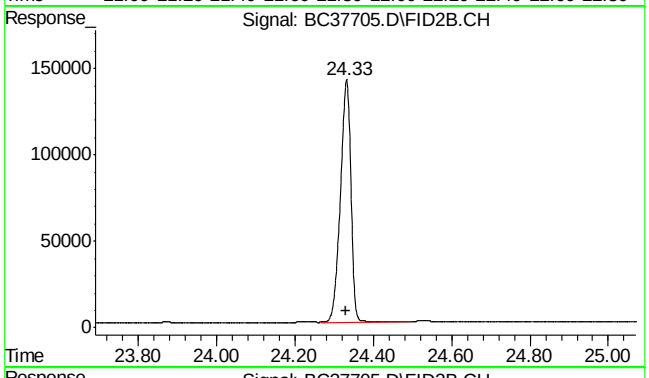
#39 c-28

R.T.: 20.360 min
Delta R.T.: 0.004 min
Response: 290735
Conc: 54.53 ppm



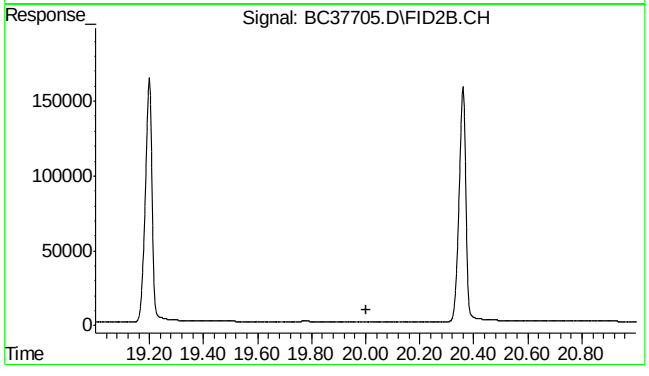
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 298821
Conc: 56.05 ppm m



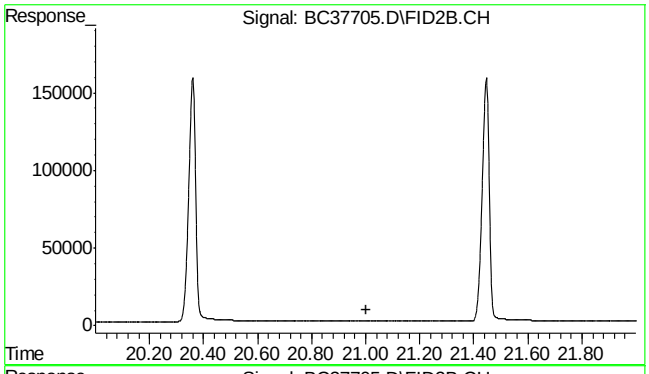
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 262103
Conc: 49.16 ppm m



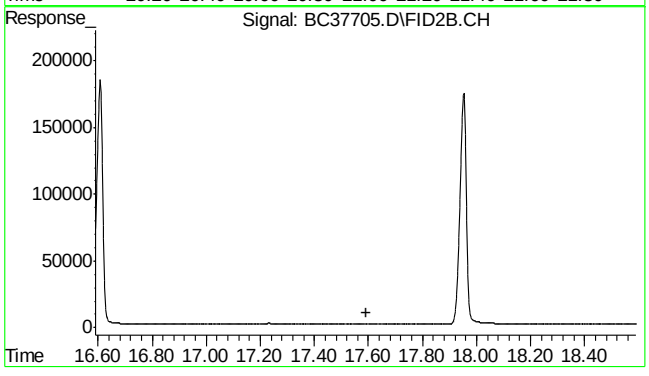
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.24

10

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Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37706.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37706.D\FID2B.CH
Acq On : 3-17-10 08:38:10 AM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20865,gbc1918,1000,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 09:13:45 2010 Quant Results File: EPH031710.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	286068	48.478 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 242.39%#	
6) s 2-bromonaphthalene	10.46	193289	51.046 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 255.23%#	
11) s o-terphenyl	14.23	338073	47.312 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 236.56%#	
35) s 1-chlorooctadecane	15.80	233167	50.861 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 254.31%#	
Target Compounds			
2) naphthalene	7.29	325960	49.038 ppm
3) 2-methylnaphthalene	8.57	320506	49.850 ppm
5) acenaphthylene	10.22	324162	47.960 ppm
7) acenaphthene	10.58	335987	46.975 ppm
8) fluorene	11.53	325663	50.005 ppm
9) phenanthrene	13.29	329036	49.997 ppm
10) anthracene	13.37	324751	49.220 ppm
12) fluoranthene	15.53	330295	48.711 ppm
13) pyrene	15.92	331052	47.367 ppm
14) benzo(a)anthracene	18.24	308727	57.237 ppm
15) chrysene	18.32	329753	48.700 ppm
16) benzo(b)fluoranthene	20.18	309772	51.859 ppm
17) benzo(k)fluoranthene	20.23	310987	47.931 ppm
18) benzo(a)pyrene	20.69	312625	50.605 ppm
19) indeno(1,2,3-cd)pyrene	22.37	237261	46.155 ppm
20) dibenzo(ah)anthracene	22.44	244374	49.227 ppm
21) benzo(ghi)perylene	22.71	217963	39.371 ppm
25) h c-9	3.81	321635	50.701 ppm
26) h c-10	5.18	323904	51.059 ppm
27) naphthalene #2	7.50	330495	47.095 ppm
28) c-12	7.68	335372	52.867 ppm
29) 2-methylnaphthalene #2	8.77	313510	50.157 ppm
30) c-14	9.86	303216	47.798 ppm
31) c-16	11.80	297820	46.947 ppm
32) c-18	13.55	300493	47.369 ppm
33) c-19	14.37	295391	55.402 ppm
34) c-20	15.15	294001	55.141 ppm
36) c-22	16.61	298099	55.910 ppm
37) c-24	17.95	300193	56.302 ppm
38) c-26	19.20	296792	55.665 ppm
39) c-28	20.36	291293	54.633 ppm
40) h c-30	21.45	298374	55.961 ppm
41) h c-36	24.33	257785	48.349 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37706.D EPH031710.M Wed Mar 17 10:50:28 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37706.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37706.D\FID2B.CH
Acq On    : 3-17-10 08:38:10 AM                      Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20865,gbc1918,1000,,,2,,               Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 09:13:45 2010  Quant Results File: EPH031710.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                   Signal #2 Phase:
Signal #1 Info  :                   Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.25

10

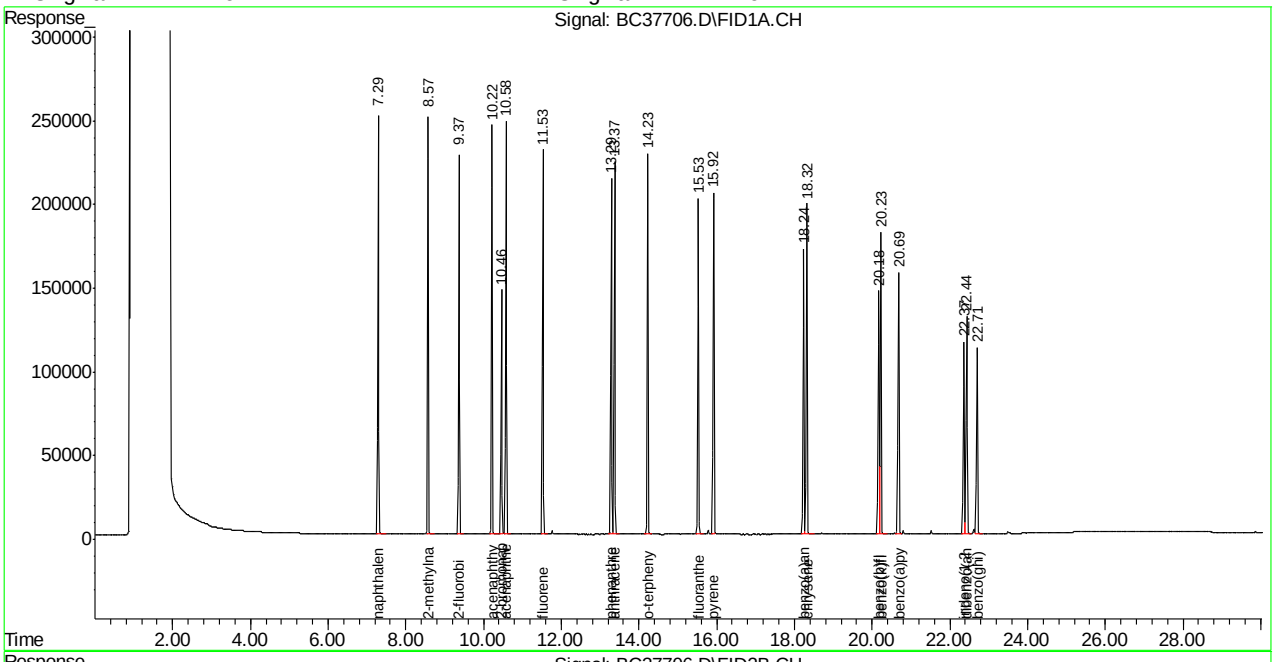
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                                (m)=manual int.
BC37706.D  EPH031710.M      Wed Mar 17 10:50:28 2010      RPGEN1
```

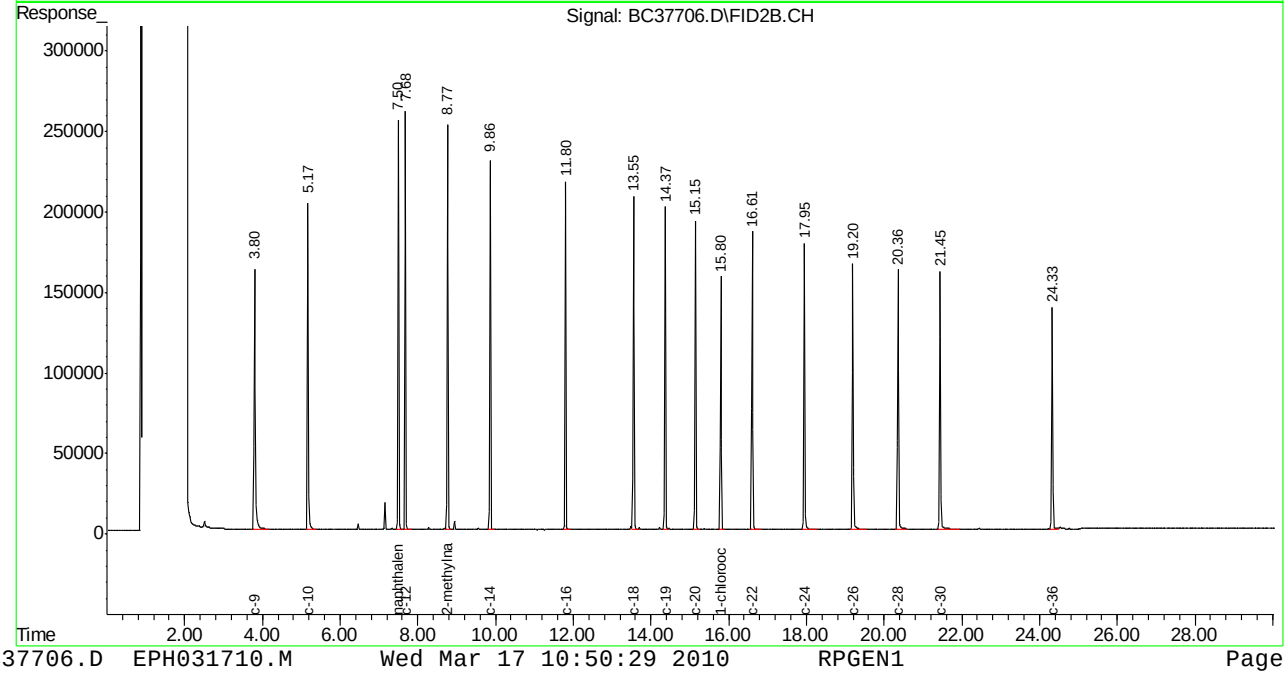
Quantitation Report (QT Reviewed)

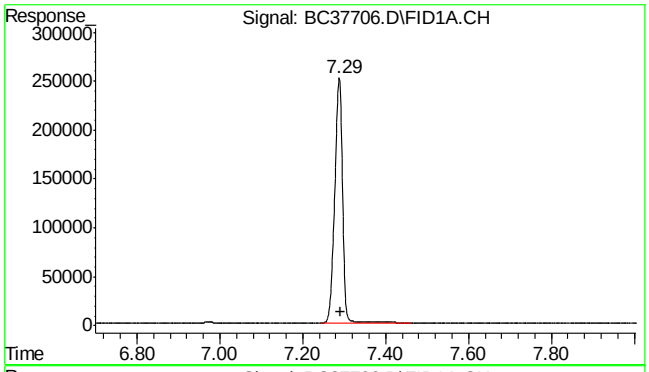
Signal #1 : C:\MSDCHEM\1\DATA\BC37706.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37706.D\FID2B.CH
Acq On : 3-17-10 08:38:10 AM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20865,gbc1918,1000,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 9:15 2010 Quant Results File: EPH031710.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

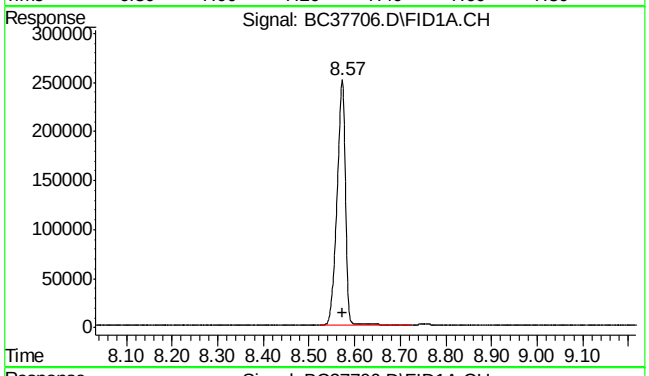






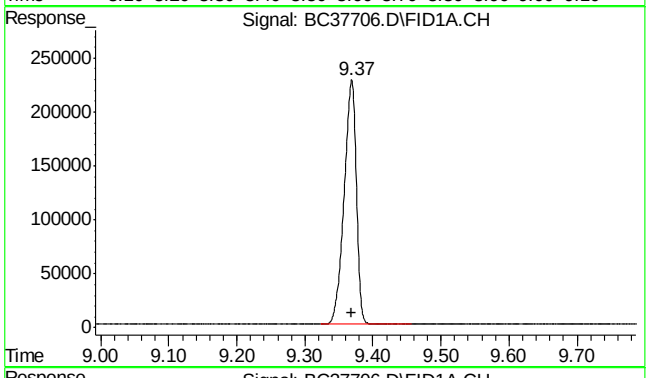
#2 naphthalene

R.T.: 7.288 min
Delta R.T.: -0.002 min
Response: 325960
Conc: 49.04 ppm



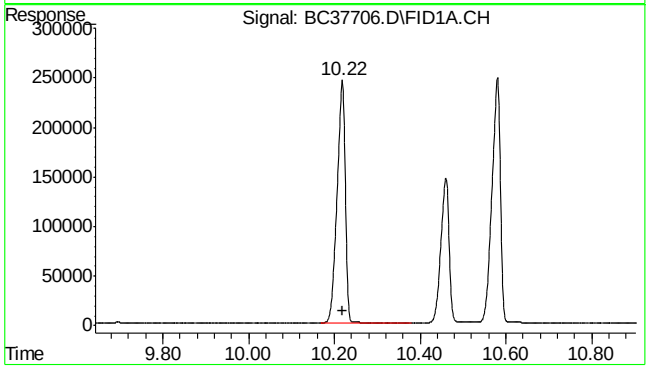
#3 2-methylnaphthalene

R.T.: 8.573 min
Delta R.T.: 0.000 min
Response: 320506
Conc: 49.85 ppm



#4 2-fluorobiphenyl

R.T.: 9.368 min
Delta R.T.: 0.000 min
Response: 286068
Conc: 48.48 ppm



#5 acenaphthylene

R.T.: 10.218 min
Delta R.T.: 0.000 min
Response: 324162
Conc: 47.96 ppm

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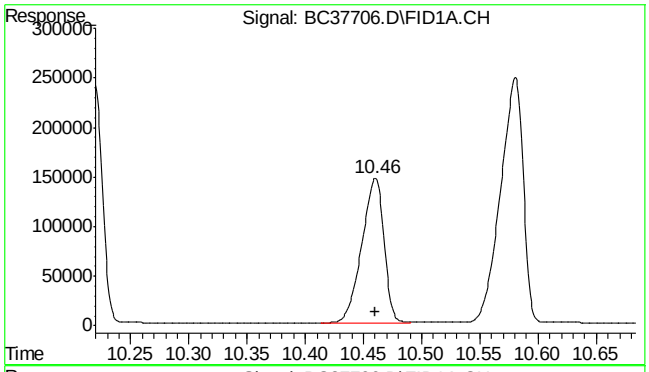
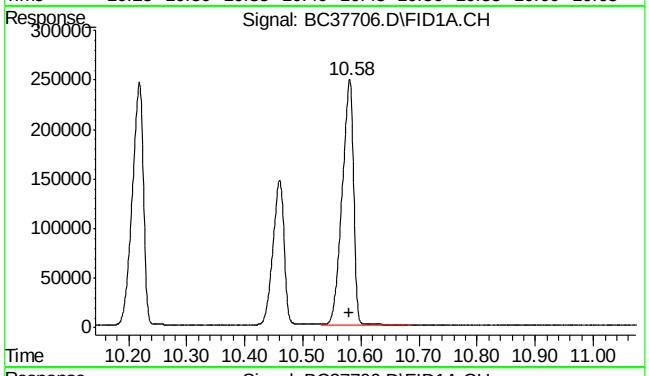


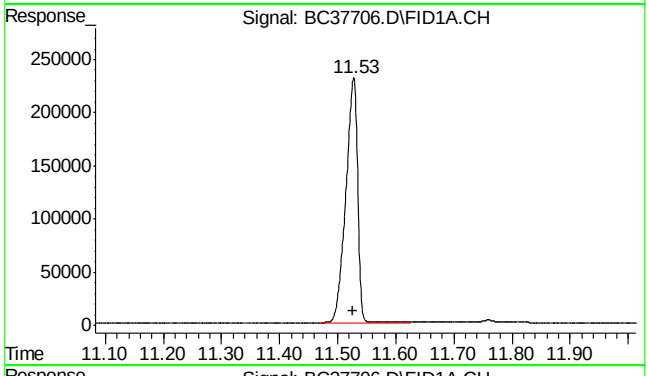
#6 2-bromonaphthalene

R.T.: 10.460 min
Delta R.T.: 0.000 min
Response: 193289
Conc: 51.05 ppm



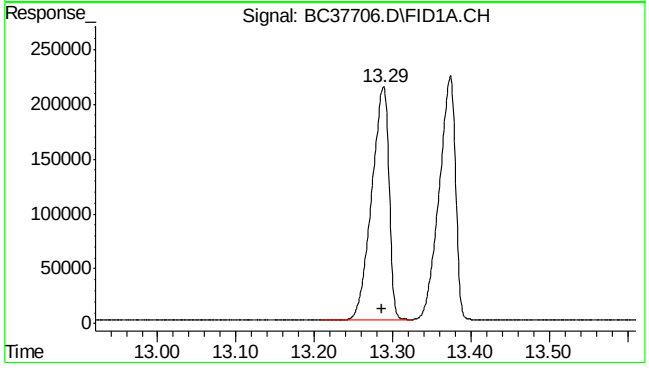
#7 acenaphthene

R.T.: 10.581 min
Delta R.T.: 0.000 min
Response: 335987
Conc: 46.98 ppm



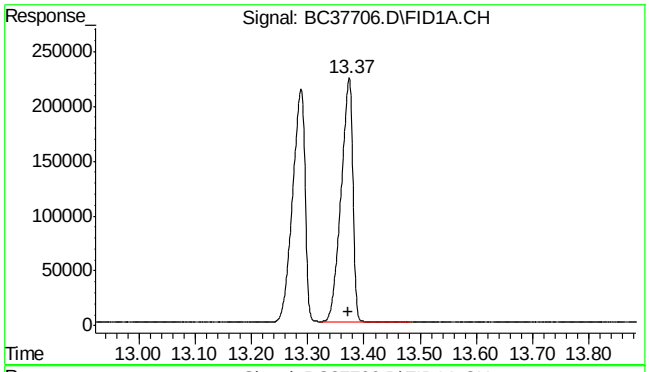
#8 fluorene

R.T.: 11.527 min
Delta R.T.: 0.002 min
Response: 325663
Conc: 50.00 ppm



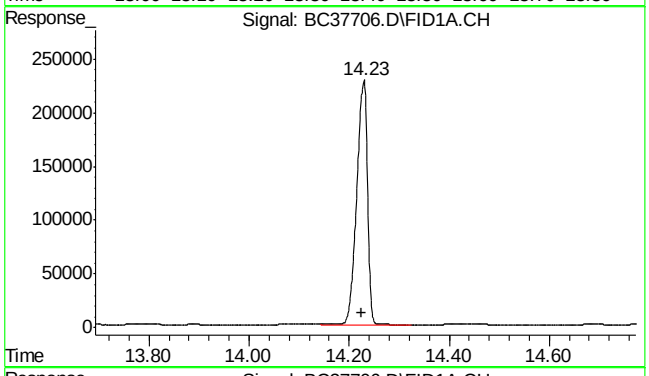
#9 phenanthrene

R.T.: 13.288 min
Delta R.T.: 0.001 min
Response: 329036
Conc: 50.00 ppm



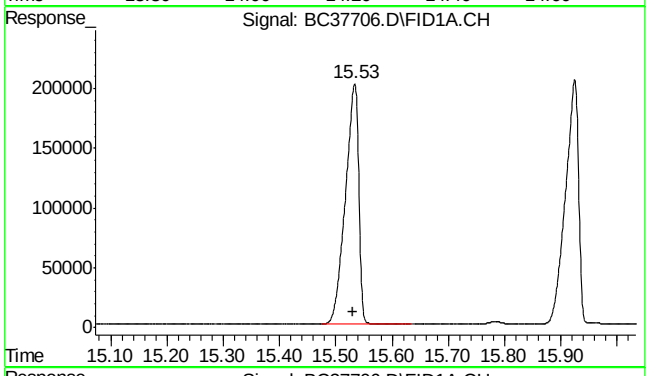
#10 anthracene

R.T.: 13.374 min
Delta R.T.: 0.002 min
Response: 324751
Conc: 49.22 ppm



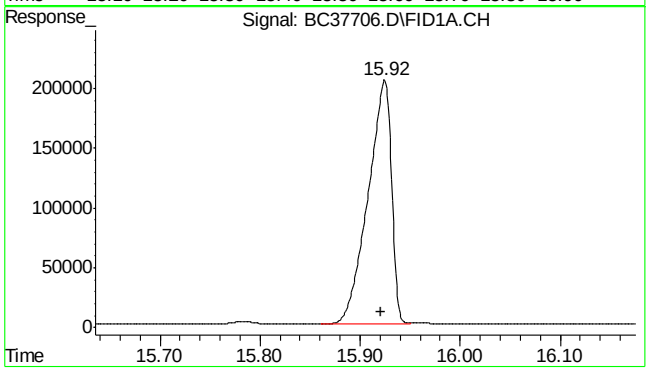
#11 o-terphenyl

R.T.: 14.230 min
Delta R.T.: 0.005 min
Response: 338073
Conc: 47.31 ppm



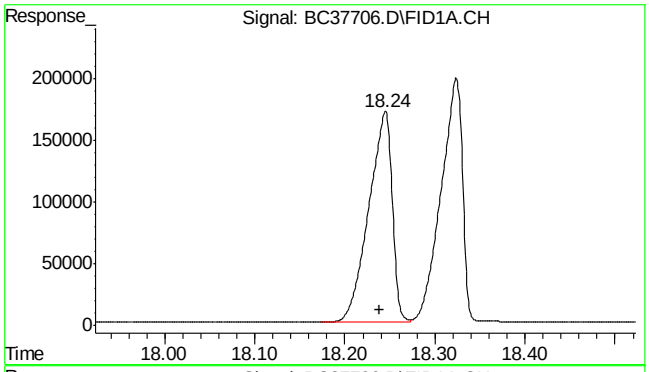
#12 fluoranthene

R.T.: 15.533 min
Delta R.T.: 0.003 min
Response: 330295
Conc: 48.71 ppm



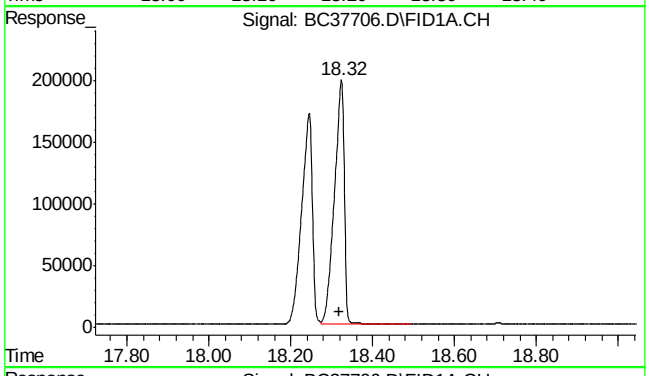
#13 pyrene

R.T.: 15.924 min
Delta R.T.: 0.003 min
Response: 331052
Conc: 47.37 ppm



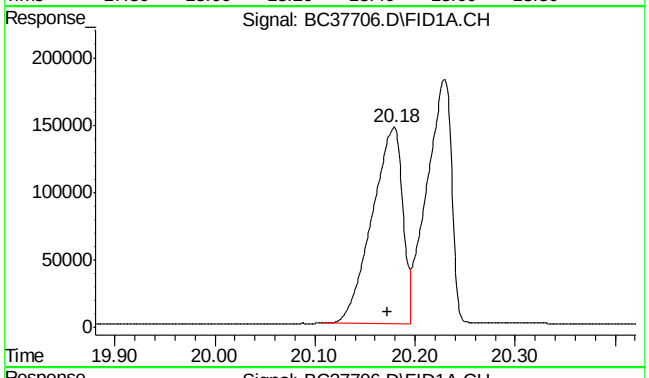
#14 benzo(a)anthracene

R.T.: 18.245 min
Delta R.T.: 0.006 min
Response: 308727
Conc: 57.24 ppm



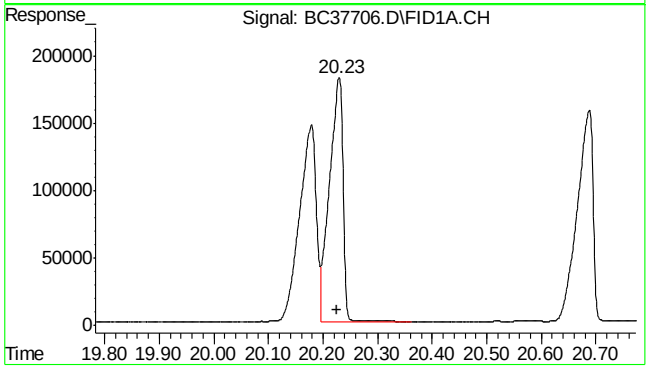
#15 chrysene

R.T.: 18.323 min
Delta R.T.: 0.004 min
Response: 329753
Conc: 48.70 ppm



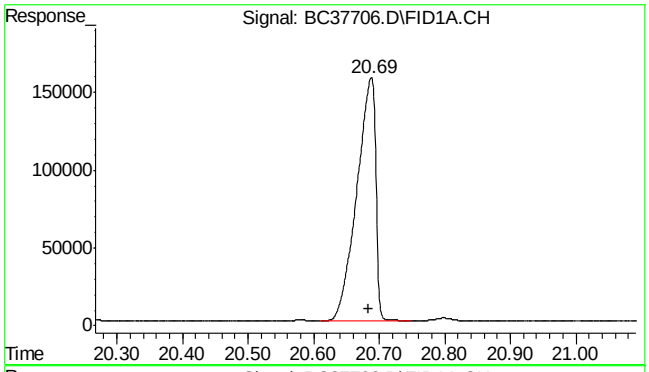
#16 benzo(b)fluoranthene

R.T.: 20.179 min
Delta R.T.: 0.006 min
Response: 309772
Conc: 51.86 ppm



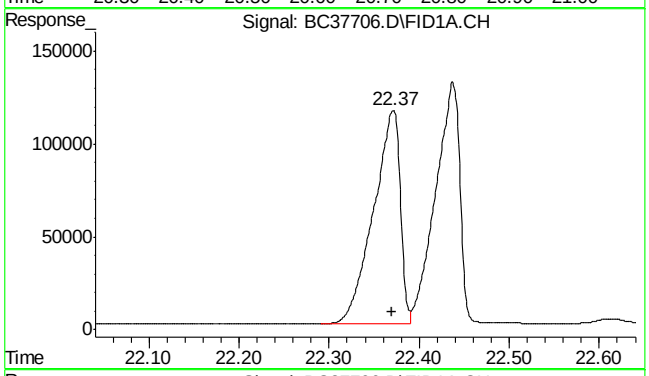
#17 benzo(k)fluoranthene

R.T.: 20.230 min
Delta R.T.: 0.004 min
Response: 310987
Conc: 47.93 ppm



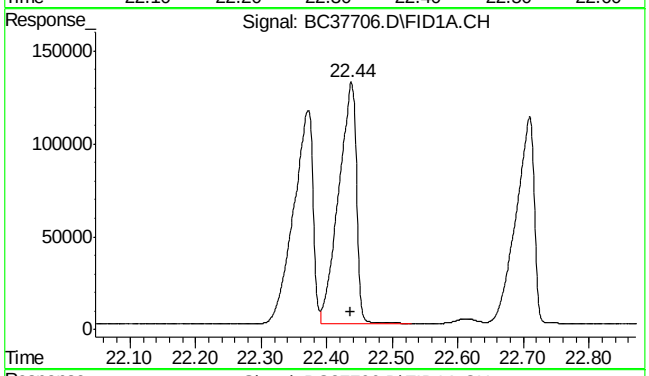
#18 benzo(a)pyrene

R.T.: 20.688 min
Delta R.T.: 0.005 min
Response: 312625
Conc: 50.61 ppm



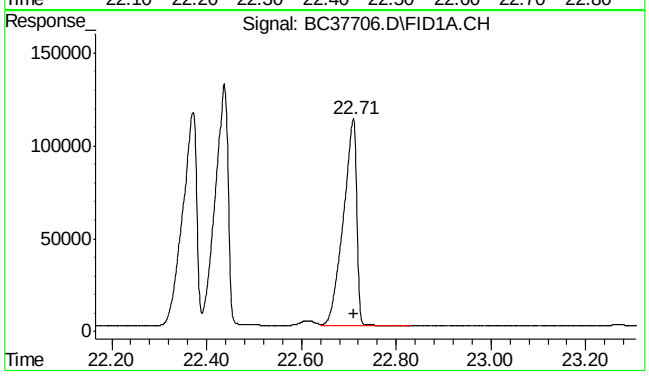
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.371 min
Delta R.T.: 0.001 min
Response: 237261
Conc: 46.15 ppm



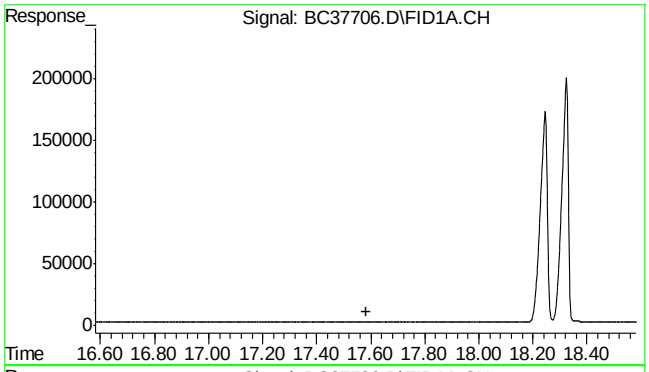
#20 dibenzo(ah)anthracene

R.T.: 22.436 min
Delta R.T.: 0.000 min
Response: 244374
Conc: 49.23 ppm



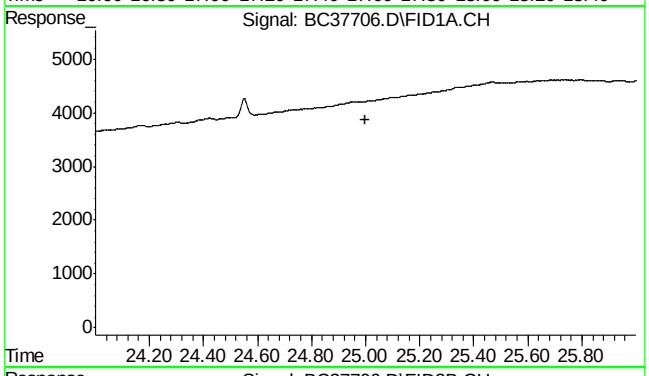
#21 benzo(ghi)perylene

R.T.: 22.710 min
Delta R.T.: -0.001 min
Response: 217963
Conc: 39.37 ppm



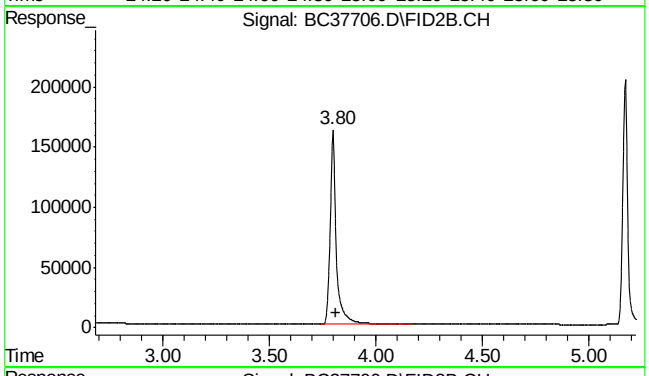
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



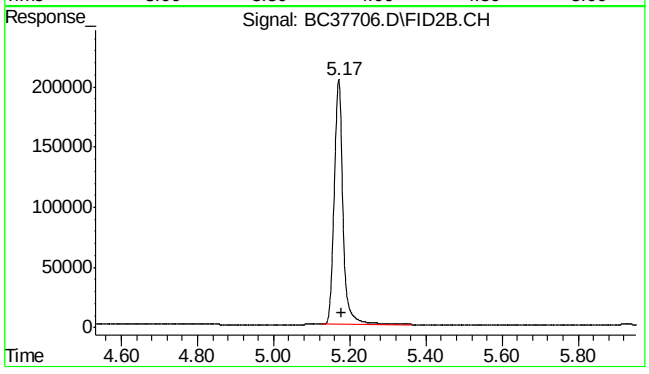
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



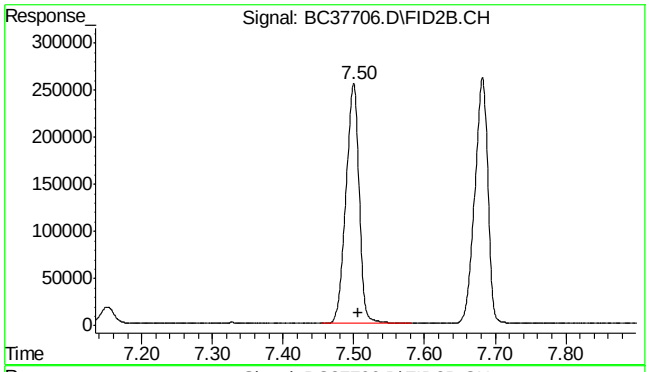
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 321635
Conc: 50.70 ppm m



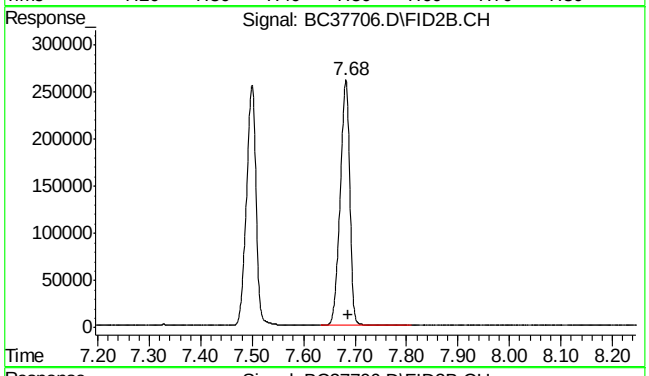
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 323904
Conc: 51.06 ppm m



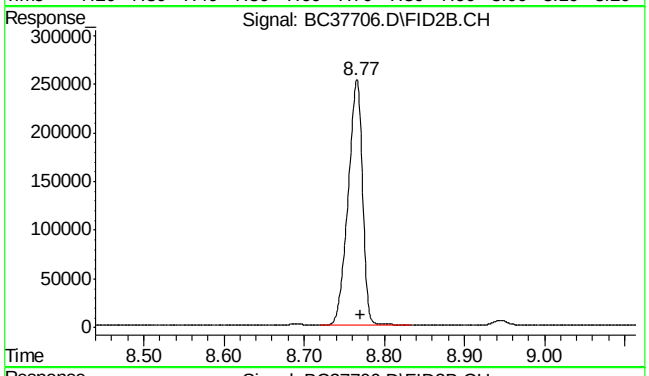
#27 naphthalene #2

R.T.: 7.500 min
Delta R.T.: -0.006 min
Response: 330495
Conc: 47.09 ppm



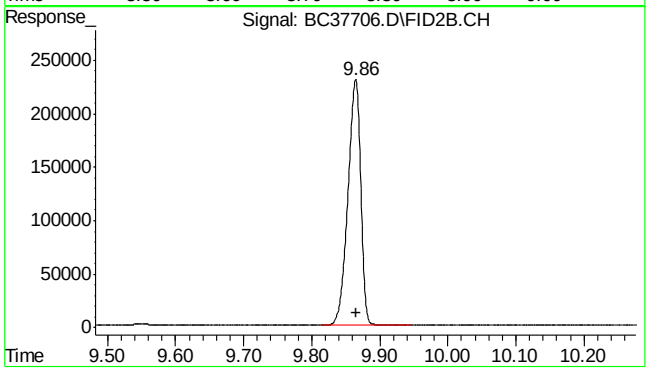
#28 c-12

R.T.: 7.682 min
Delta R.T.: -0.005 min
Response: 335372
Conc: 52.87 ppm



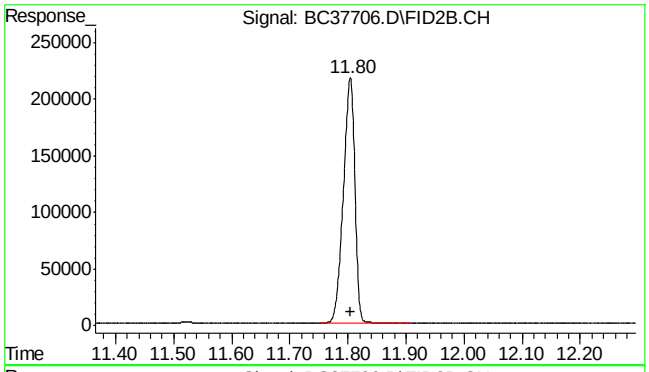
#29 2-methylnaphthalene #2

R.T.: 8.766 min
Delta R.T.: -0.005 min
Response: 313510
Conc: 50.16 ppm



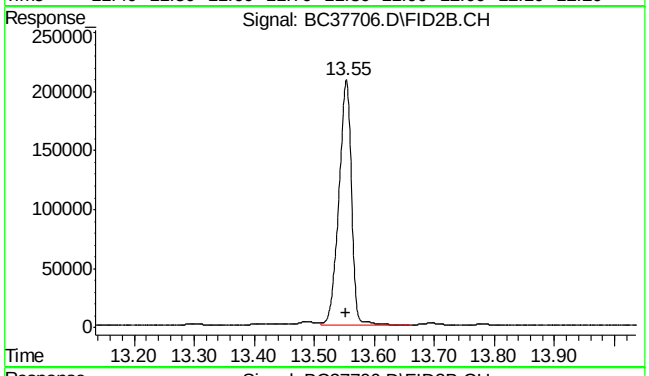
#30 c-14

R.T.: 9.865 min
Delta R.T.: -0.001 min
Response: 303216
Conc: 47.80 ppm



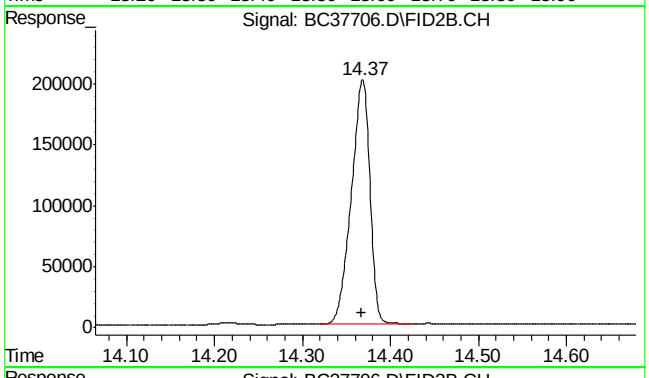
#31 c-16

R.T.: 11.804 min
Delta R.T.: 0.000 min
Response: 297820
Conc: 46.95 ppm



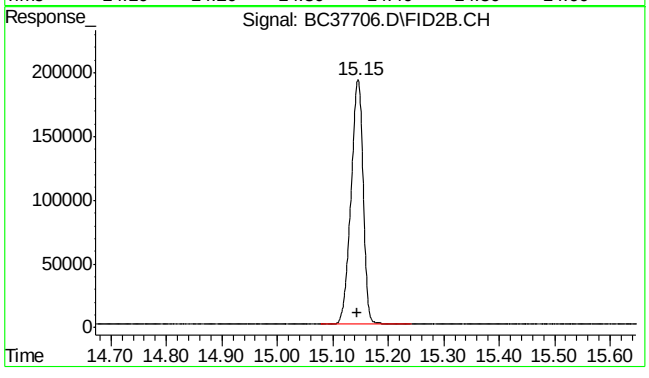
#32 c-18

R.T.: 13.553 min
Delta R.T.: 0.000 min
Response: 300493
Conc: 47.37 ppm



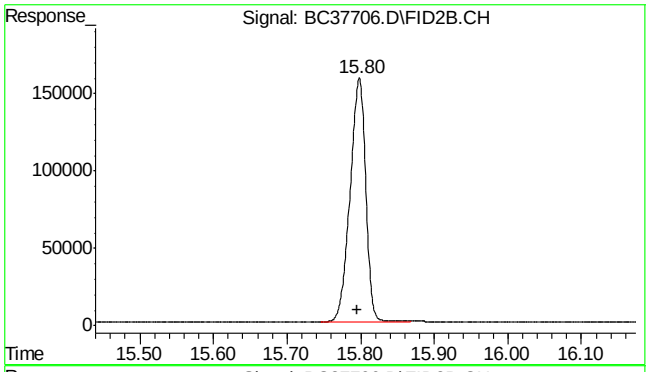
#33 c-19

R.T.: 14.368 min
Delta R.T.: 0.001 min
Response: 295391
Conc: 55.40 ppm



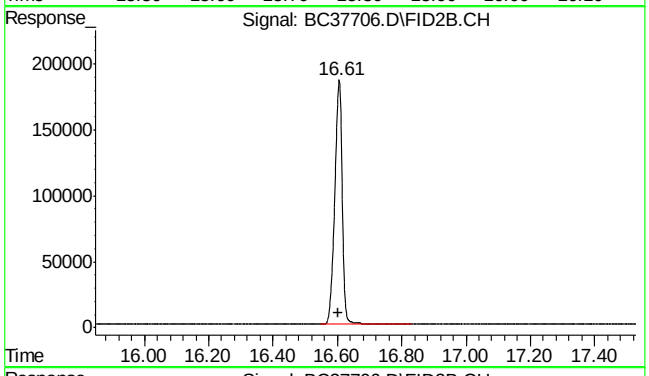
#34 c-20

R.T.: 15.146 min
Delta R.T.: 0.002 min
Response: 294001
Conc: 55.14 ppm



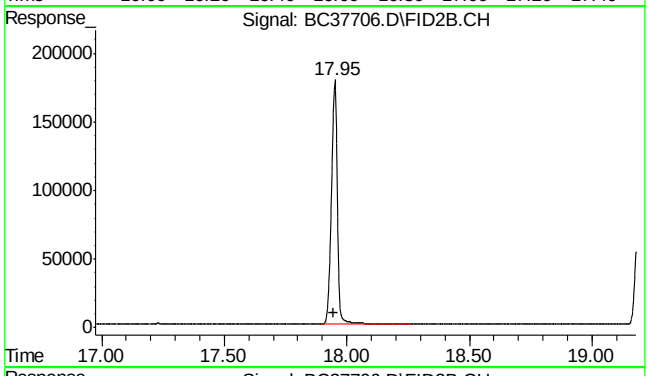
#35 1-chlorooctadecane

R.T.: 15.798 min
Delta R.T.: 0.002 min
Response: 233167
Conc: 50.86 ppm



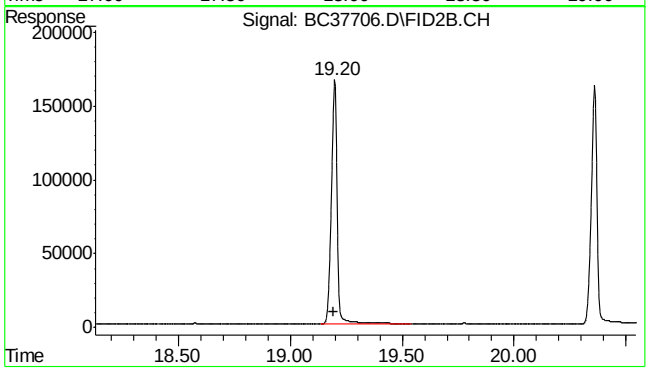
#36 c-22

R.T.: 16.606 min
Delta R.T.: 0.003 min
Response: 298099
Conc: 55.91 ppm



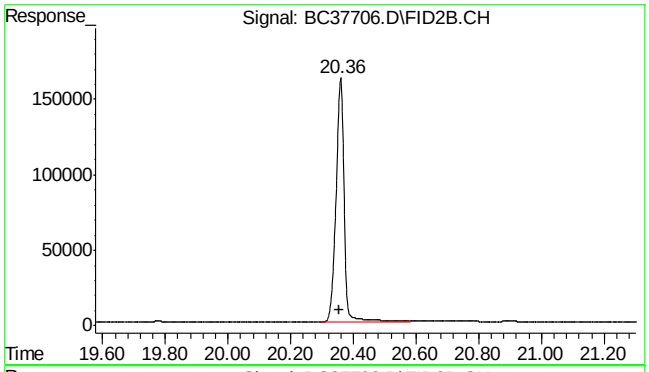
#37 c-24

R.T.: 17.951 min
Delta R.T.: 0.003 min
Response: 300193
Conc: 56.30 ppm



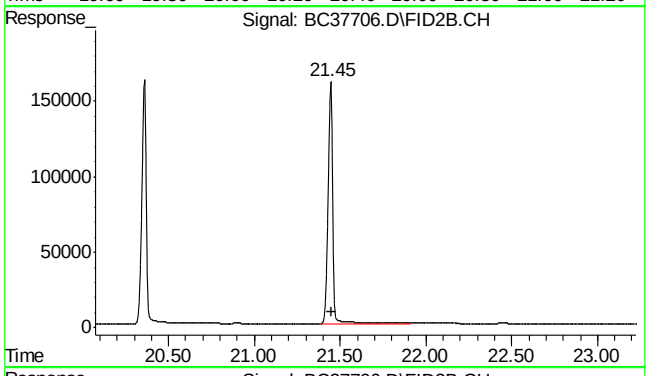
#38 c-26

R.T.: 19.199 min
Delta R.T.: 0.004 min
Response: 296792
Conc: 55.66 ppm



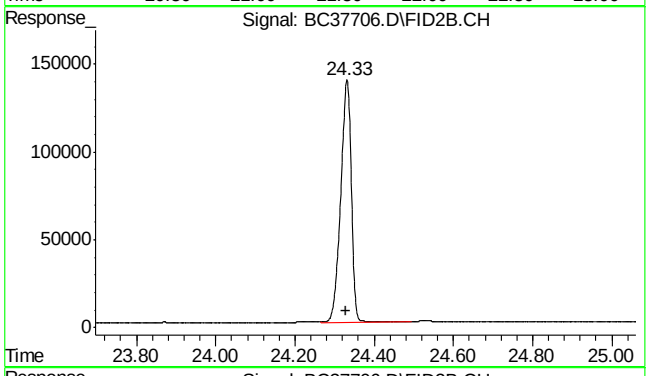
#39 c-28

R.T.: 20.360 min
Delta R.T.: 0.004 min
Response: 291293
Conc: 54.63 ppm



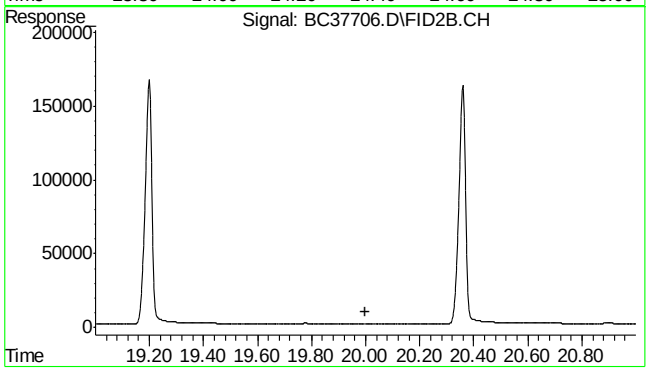
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 298374
Conc: 55.96 ppm m



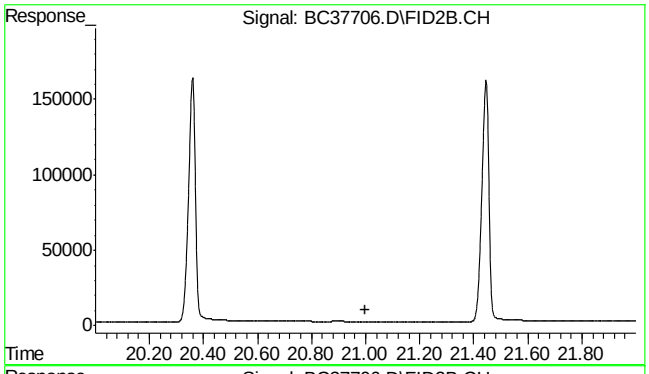
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 257785
Conc: 48.35 ppm m



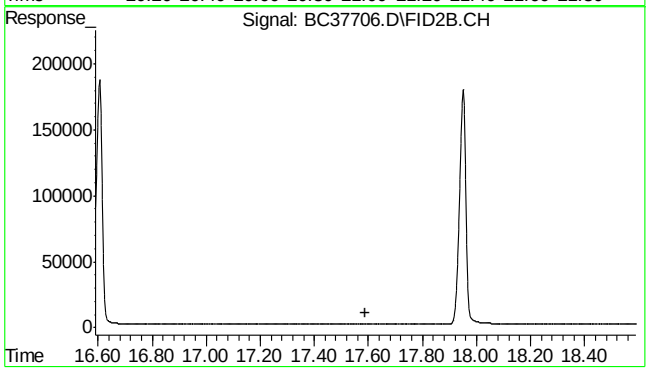
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.25

10

ACCUTEST Laboratories F71731

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\BC37717.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37717.D\FID2B.CH
Acq On : 3-17-10 04:46:37 PM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20865,gbc1918,910,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 17:16:58 2010 Quant Results File: EPH031710.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	9.37	288473	48.886 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 244.43%#	
6) s 2-bromonaphthalene	10.46	194402	51.340 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 256.70%#	
11) s o-terphenyl	14.23	340934	47.712 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 238.56%#	
35) s 1-chlorooctadecane	15.80	231921	50.589 ppm
Spiked Amount 20.000 Range 40 - 140		Recovery = 252.94%#	
Target Compounds			
2) naphthalene	7.29	329052	49.503 ppm
3) 2-methylnaphthalene	8.57	323266	50.279 ppm
5) acenaphthylene	10.22	327247	48.416 ppm
7) acenaphthene	10.58	339485	47.464 ppm
8) fluorene	11.52	328221	50.398 ppm
9) phenanthrene	13.28	331666	50.397 ppm
10) anthracene	13.37	327598	49.651 ppm
12) fluoranthene	15.53	334873	49.386 ppm
13) pyrene	15.92	335772	48.042 ppm
14) benzo(a)anthracene	18.24	312733	57.979 ppm
15) chrysene	18.32	336271	49.663 ppm
16) benzo(b)fluoranthene	20.18	316385	52.966 ppm
17) benzo(k)fluoranthene	20.23	323909	49.922 ppm
18) benzo(a)pyrene	20.68	325360	52.667 ppm
19) indeno(1,2,3-cd)pyrene	22.37	280739	54.612 ppm
20) dibenzo(ah)anthracene	22.44	281109	56.626 ppm
21) benzo(ghi)perylene	22.71	268378	48.477 ppm
25) h c-9	3.81	326847	51.523 ppm
26) h c-10	5.18	329257	51.903 ppm
27) naphthalene #2	7.51	335808	47.852 ppm
28) c-12	7.69	339652	53.541 ppm
29) 2-methylnaphthalene #2	8.78	317506	50.796 ppm
30) c-14	9.87	305811	48.207 ppm
31) c-16	11.81	299061	47.143 ppm
32) c-18	13.56	300031	47.296 ppm
33) c-19	14.37	294632	55.259 ppm
34) c-20	15.15	292446	54.849 ppm
36) c-22	16.61	295410	55.405 ppm
37) c-24	17.96	296561	55.621 ppm
38) c-26	19.20	292968	54.947 ppm
39) c-28	20.36	287470	53.916 ppm
40) h c-30	21.45	297298	55.759 ppm
41) h c-36	24.33	259343	48.641 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
BC37717.D EPH031710.M Thu Mar 18 10:00:58 2010 RPGEN1

Quantitation Report (QT Reviewed)

```
Signal #1 : C:\MSDCHEM\1\DATA\BC37717.D\FID1A.CH         Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37717.D\FID2B.CH
Acq On    : 3-17-10 04:46:37 PM                      Operator: KimD
Sample    : cc1915-50                                Inst    : GCBC
Misc      : op20865,gbc1918,910,,,2,,                Multiplr: 1.00
IntFile Signal #1: rteint.p     IntFile Signal #2: rteint2.p
Quant Time: Mar 17 17:16:58 2010  Quant Results File: EPH031710.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title        : BMAEPH
Last Update  : Fri Mar 12 08:50:40 2010
Response via : Initial Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :

    Compound                    R.T.       Response    Conc Units
-------------------------------------------------------------------------
```

10.5.26

10

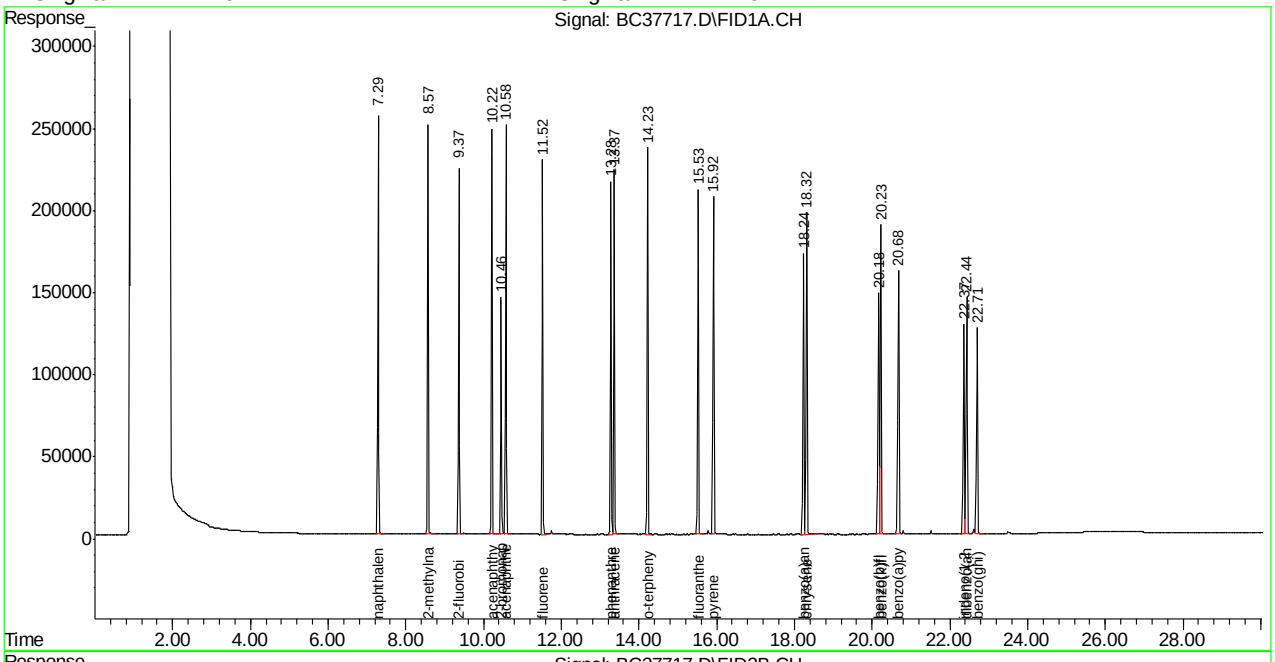
```
-------------------------------------------------------------------------
(f)=RT Delta > 1/2 Window                              (m)=manual int.
BC37717.D  EPH031710.M      Thu Mar 18 10:00:58 2010      RPGEN1
```

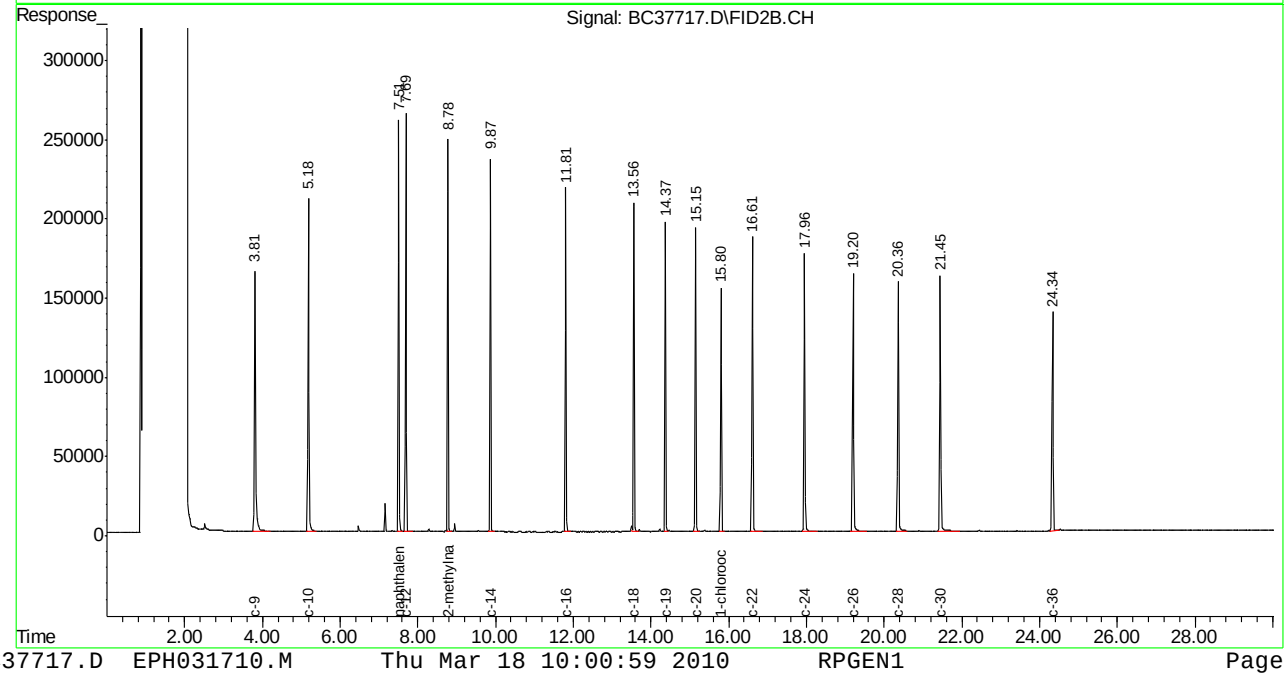
Quantitation Report (QT Reviewed)

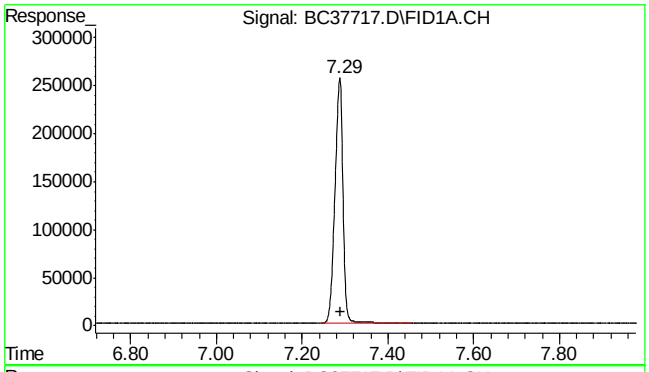
Signal #1 : C:\MSDCHEM\1\DATA\BC37717.D\FID1A.CH Vial: 100
Signal #2 : C:\MSDCHEM\1\DATA\BC37717.D\FID2B.CH
Acq On : 3-17-10 04:46:37 PM Operator: KimD
Sample : cc1915-50 Inst : GCBC
Misc : op20865,gbc1918,910,,,2,, Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Mar 17 17:18 2010 Quant Results File: EPH031710.RES

Quant Method : C:\MSDCHEM\1\METHODS\EPH031710.M (RTE Integrator)
Title : BMAEPH
Last Update : Fri Mar 12 08:50:40 2010
Response via : Multiple Level Calibration
DataAcq Meth : EPHDUAL3.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

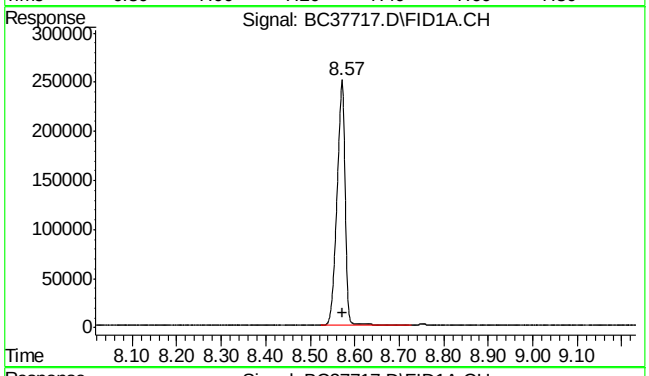






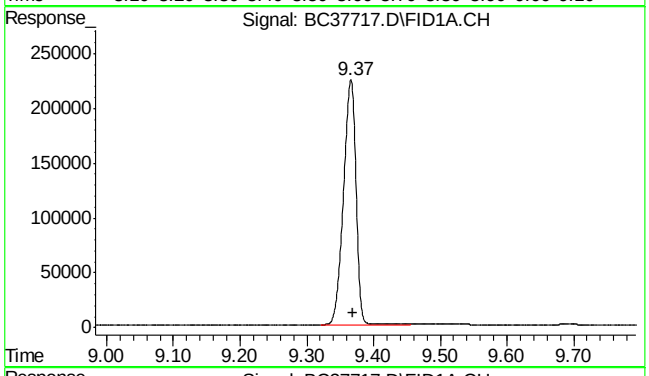
#2 naphthalene

R.T.: 7.287 min
Delta R.T.: -0.003 min
Response: 329052
Conc: 49.50 ppm



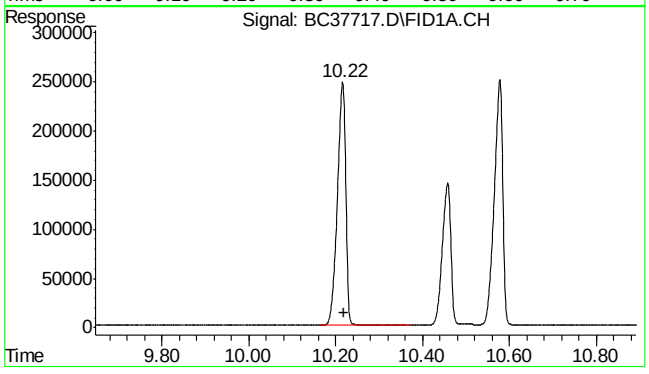
#3 2-methylnaphthalene

R.T.: 8.572 min
Delta R.T.: -0.002 min
Response: 323266
Conc: 50.28 ppm



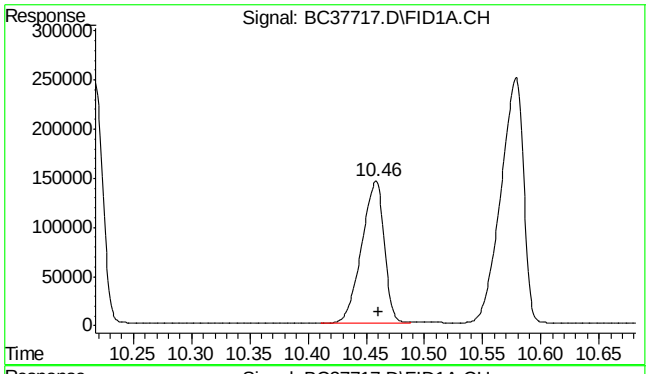
#4 2-fluorobiphenyl

R.T.: 9.366 min
Delta R.T.: -0.003 min
Response: 288473
Conc: 48.89 ppm



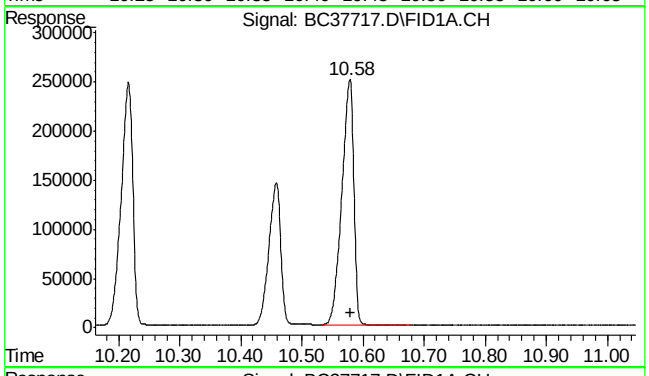
#5 acenaphthylene

R.T.: 10.216 min
Delta R.T.: -0.003 min
Response: 327247
Conc: 48.42 ppm



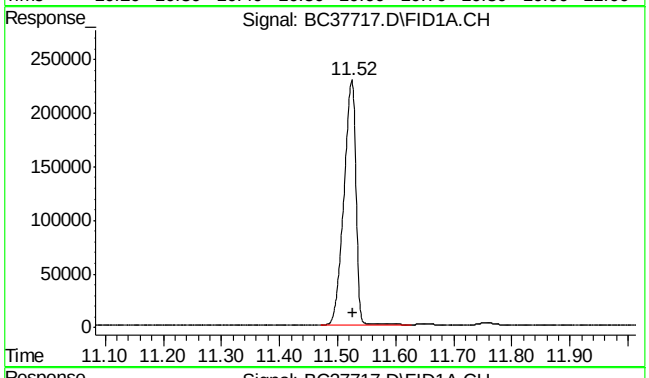
#6 2-bromonaphthalene

R.T.: 10.458 min
Delta R.T.: -0.002 min
Response: 194402
Conc: 51.34 ppm



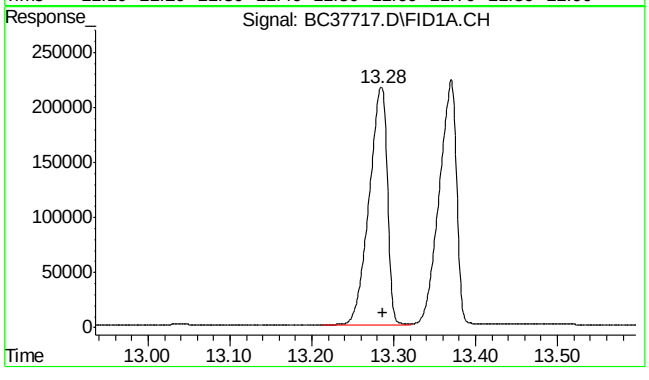
#7 acenaphthene

R.T.: 10.578 min
Delta R.T.: -0.002 min
Response: 339485
Conc: 47.46 ppm



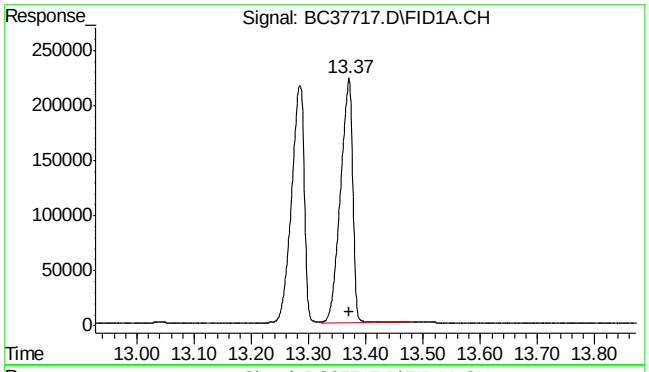
#8 fluorene

R.T.: 11.524 min
Delta R.T.: -0.001 min
Response: 328221
Conc: 50.40 ppm



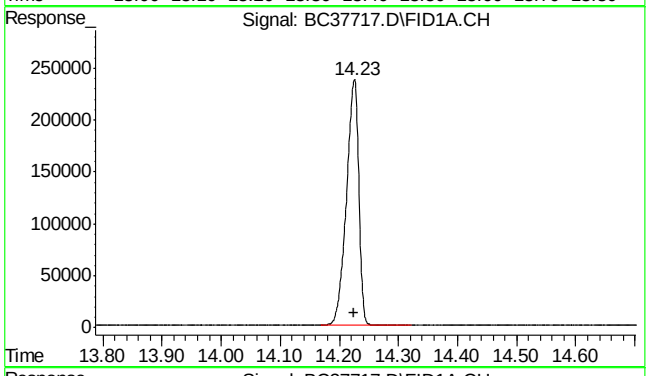
#9 phenanthrene

R.T.: 13.284 min
Delta R.T.: -0.003 min
Response: 331666
Conc: 50.40 ppm



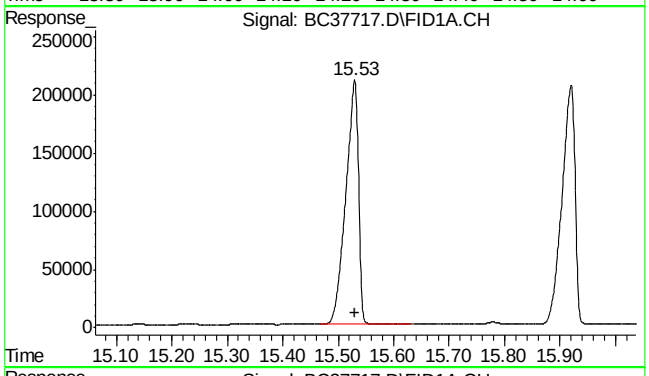
#10 anthracene

R.T.: 13.370 min
Delta R.T.: -0.002 min
Response: 327598
Conc: 49.65 ppm



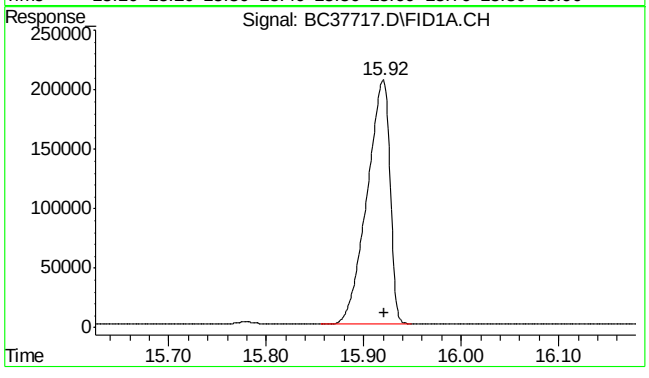
#11 o-terphenyl

R.T.: 14.226 min
Delta R.T.: 0.000 min
Response: 340934
Conc: 47.71 ppm



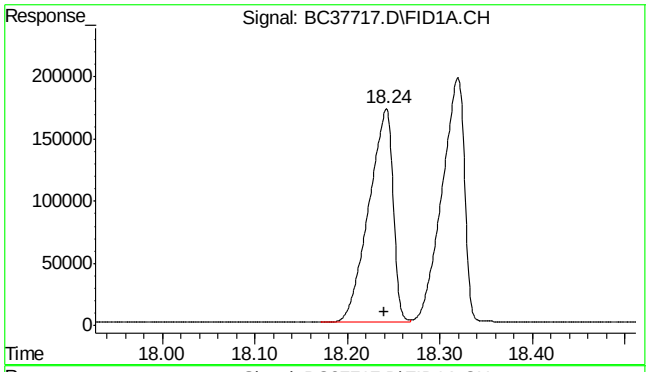
#12 fluoranthene

R.T.: 15.529 min
Delta R.T.: -0.001 min
Response: 334873
Conc: 49.39 ppm



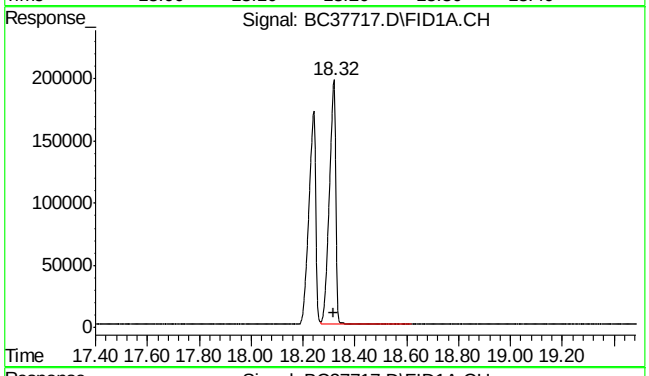
#13 pyrene

R.T.: 15.920 min
Delta R.T.: -0.001 min
Response: 335772
Conc: 48.04 ppm



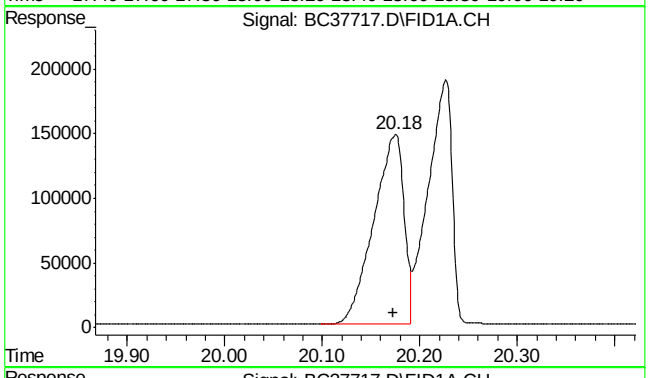
#14 benzo(a)anthracene

R.T.: 18.242 min
Delta R.T.: 0.003 min
Response: 312733
Conc: 57.98 ppm



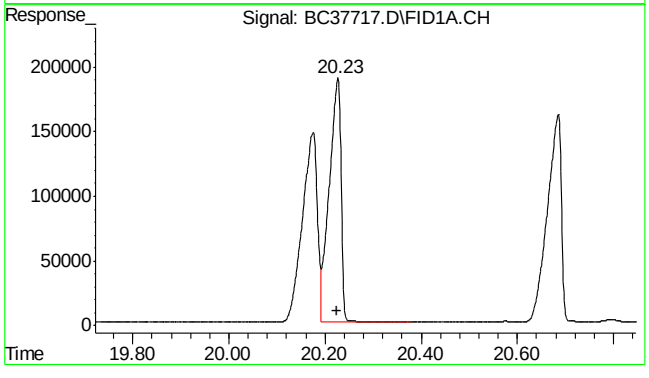
#15 chrysene

R.T.: 18.319 min
Delta R.T.: 0.000 min
Response: 336271
Conc: 49.66 ppm



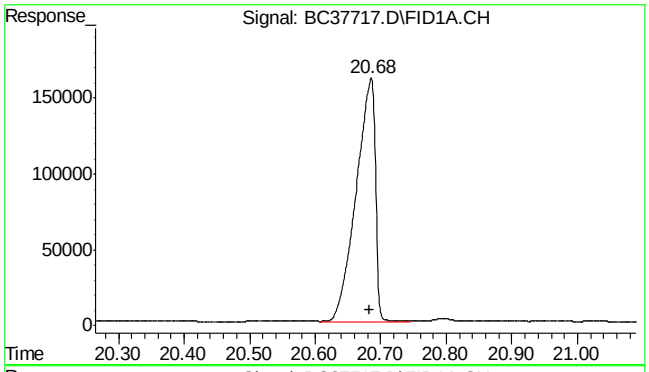
#16 benzo(b)fluoranthene

R.T.: 20.176 min
Delta R.T.: 0.003 min
Response: 316385
Conc: 52.97 ppm



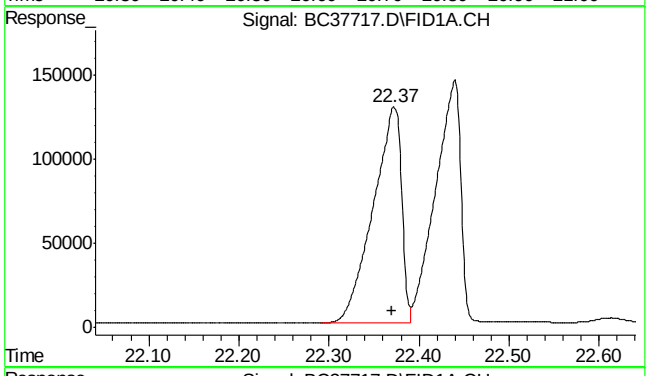
#17 benzo(k)fluoranthene

R.T.: 20.227 min
Delta R.T.: 0.000 min
Response: 323909
Conc: 49.92 ppm



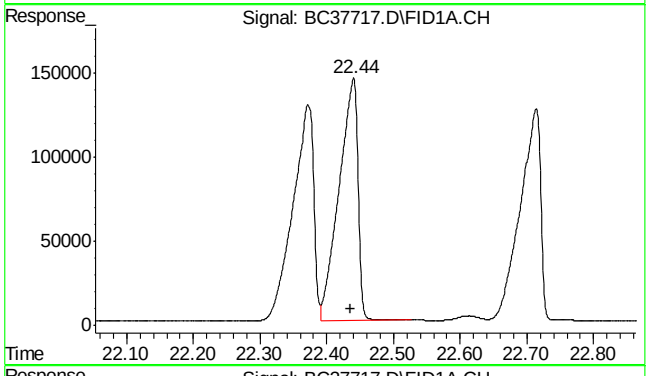
#18 benzo(a)pyrene

R.T.: 20.685 min
Delta R.T.: 0.001 min
Response: 325360
Conc: 52.67 ppm



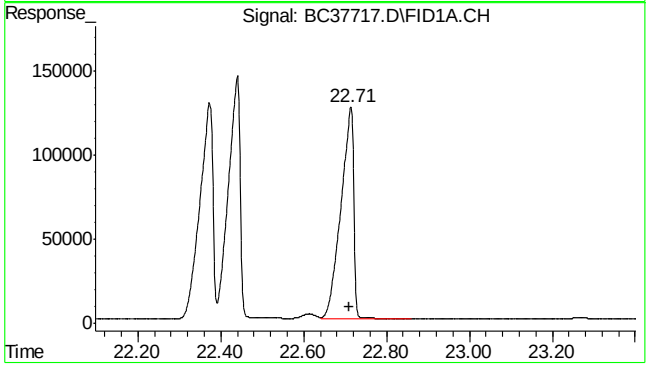
#19 indeno(1,2,3-cd)pyrene

R.T.: 22.372 min
Delta R.T.: 0.002 min
Response: 280739
Conc: 54.61 ppm



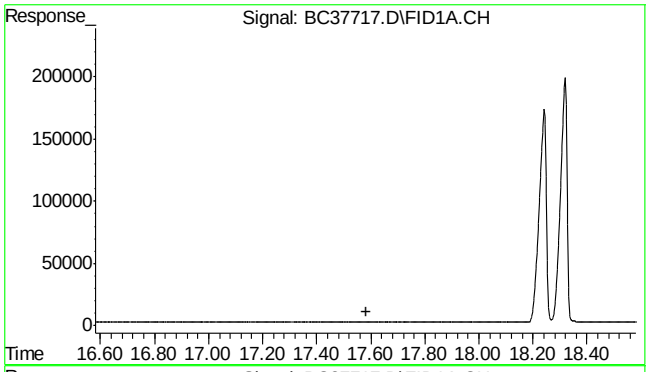
#20 dibenzo(ah)anthracene

R.T.: 22.440 min
Delta R.T.: 0.004 min
Response: 281109
Conc: 56.63 ppm



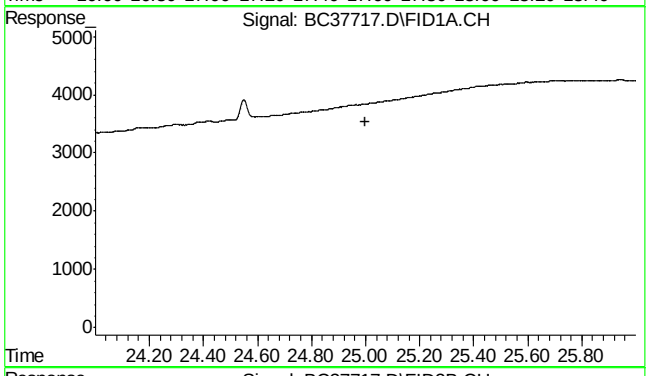
#21 benzo(ghi)perylene

R.T.: 22.714 min
Delta R.T.: 0.003 min
Response: 268378
Conc: 48.48 ppm



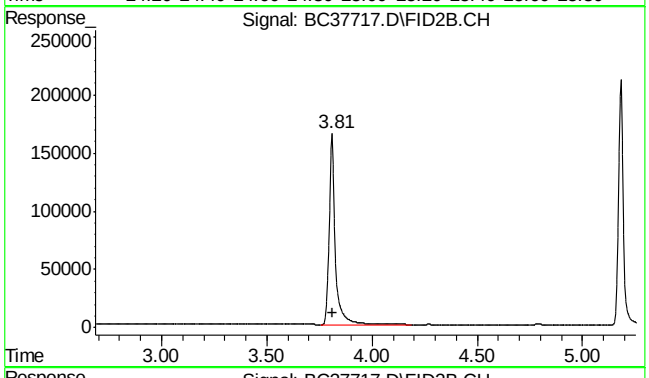
#22 bht

R.T.: 0.000 min
Exp R.T. : 17.581 min
Response: 0
Conc: N.D.



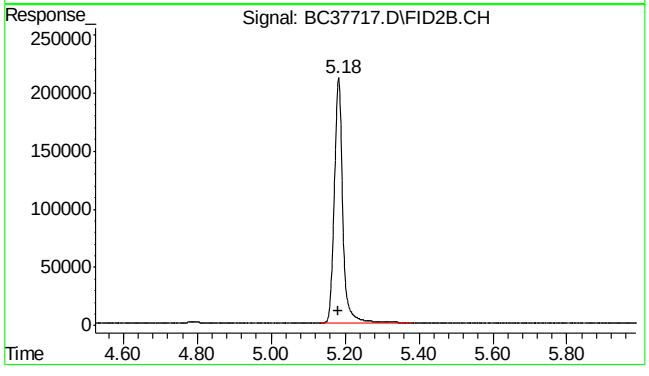
#23 BHT

R.T.: 0.000 min
Exp R.T. : 25.000 min
Response: 0
Conc: N.D.



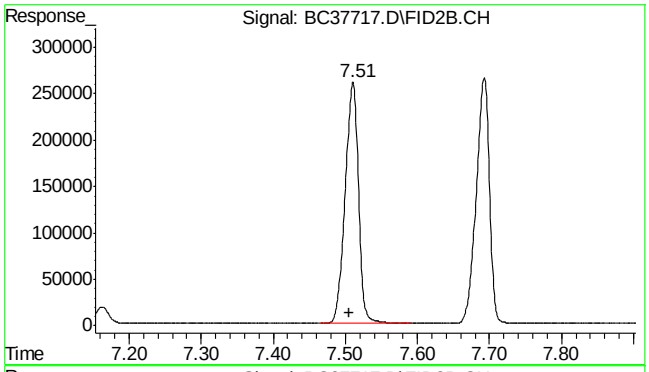
#25 c-9

R.T.: 3.810 min
Delta R.T.: 0.000 min
Response: 326847
Conc: 51.52 ppm m



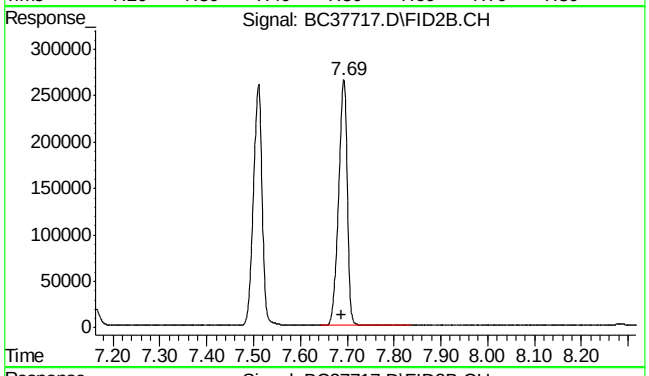
#26 c-10

R.T.: 5.180 min
Delta R.T.: 0.000 min
Response: 329257
Conc: 51.90 ppm m



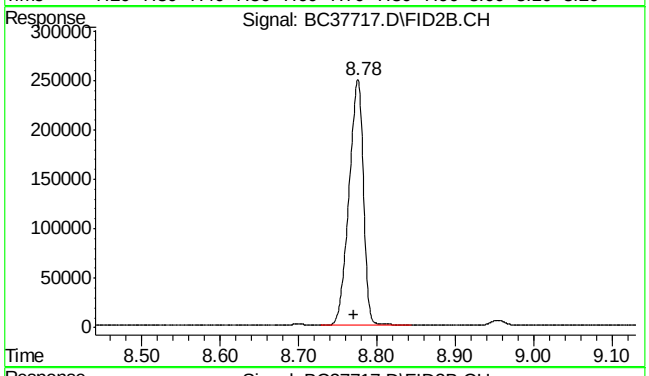
#27 naphthalene #2

R.T.: 7.511 min
Delta R.T.: 0.005 min
Response: 335808
Conc: 47.85 ppm



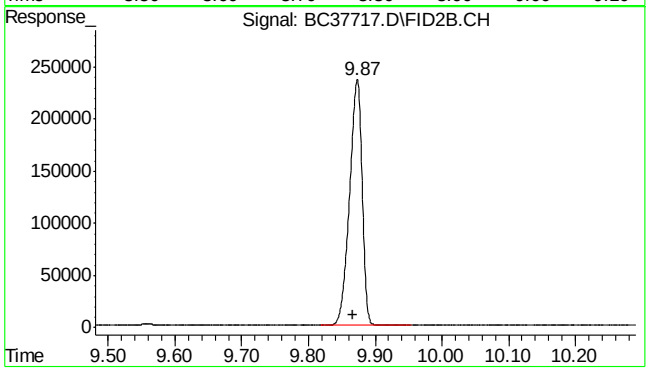
#28 c-12

R.T.: 7.692 min
Delta R.T.: 0.005 min
Response: 339652
Conc: 53.54 ppm



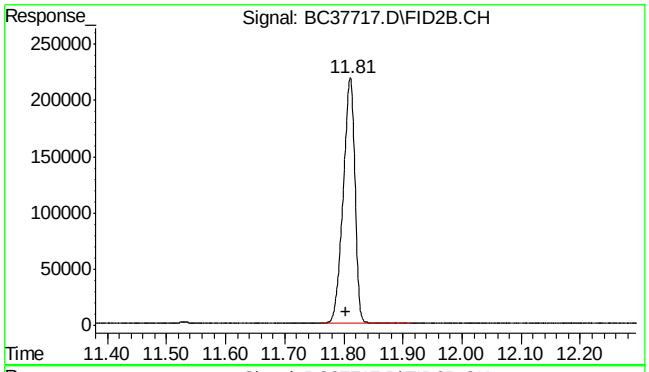
#29 2-methylnaphthalene #2

R.T.: 8.776 min
Delta R.T.: 0.005 min
Response: 317506
Conc: 50.80 ppm



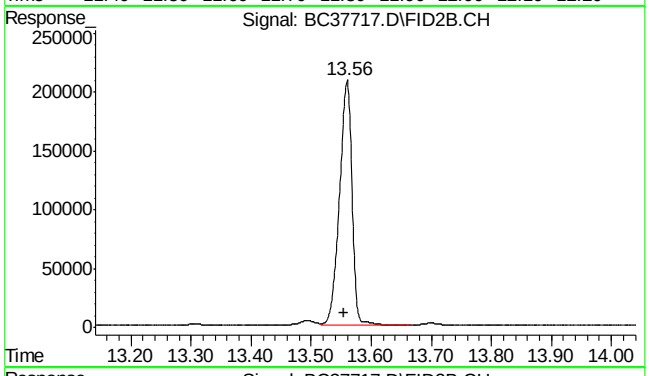
#30 c-14

R.T.: 9.873 min
Delta R.T.: 0.007 min
Response: 305811
Conc: 48.21 ppm



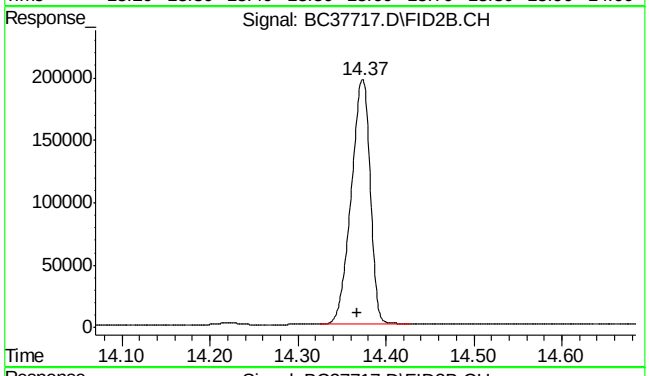
#31 c-16

R.T.: 11.811 min
Delta R.T.: 0.006 min
Response: 299061
Conc: 47.14 ppm



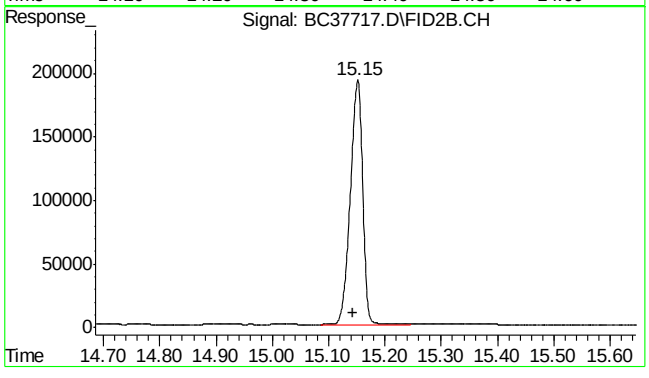
#32 c-18

R.T.: 13.560 min
Delta R.T.: 0.006 min
Response: 300031
Conc: 47.30 ppm



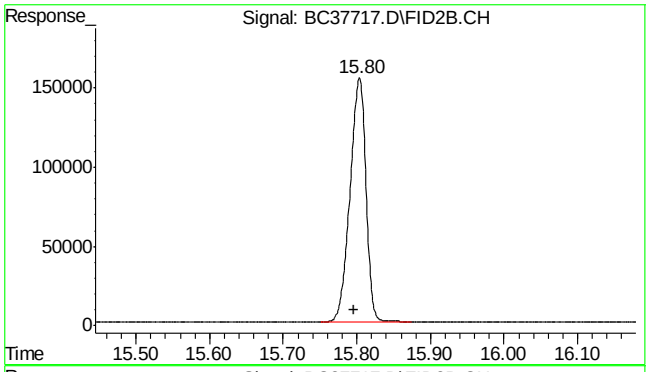
#33 c-19

R.T.: 14.373 min
Delta R.T.: 0.006 min
Response: 294632
Conc: 55.26 ppm



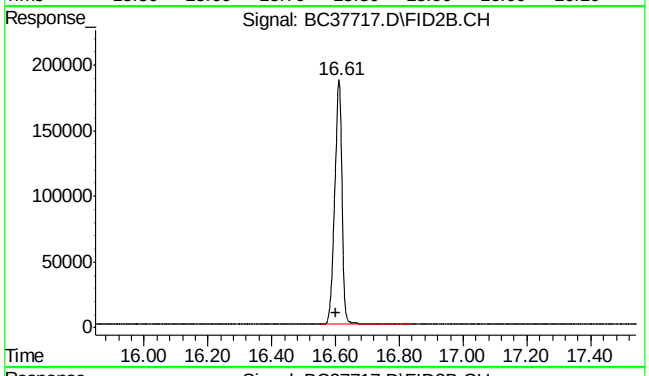
#34 c-20

R.T.: 15.152 min
Delta R.T.: 0.008 min
Response: 292446
Conc: 54.85 ppm



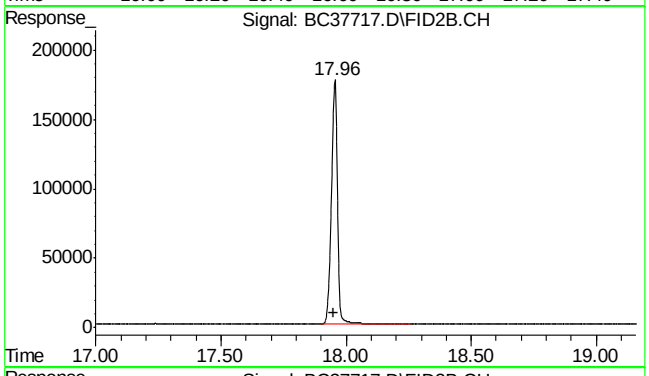
#35 1-chlorooctadecane

R.T.: 15.803 min
Delta R.T.: 0.007 min
Response: 231921
Conc: 50.59 ppm



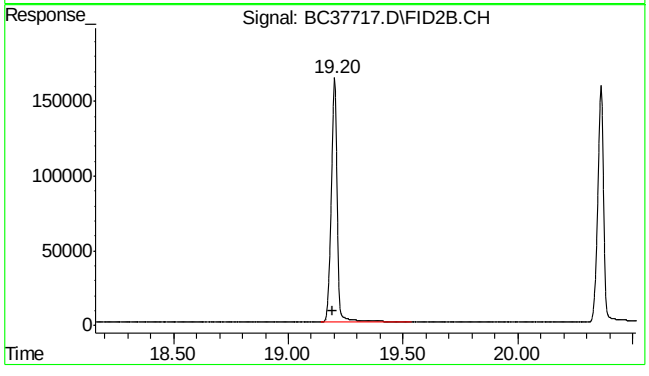
#36 c-22

R.T.: 16.611 min
Delta R.T.: 0.008 min
Response: 295410
Conc: 55.41 ppm



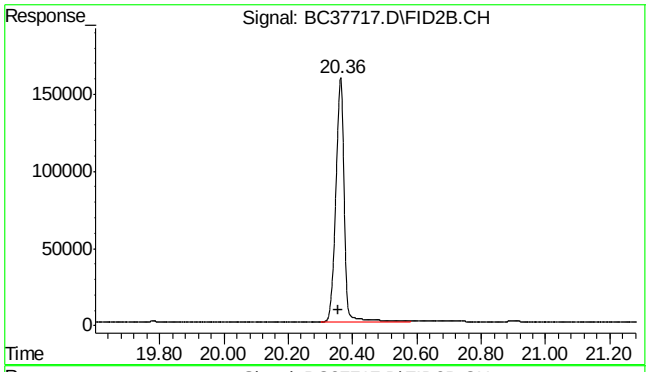
#37 c-24

R.T.: 17.956 min
Delta R.T.: 0.007 min
Response: 296561
Conc: 55.62 ppm



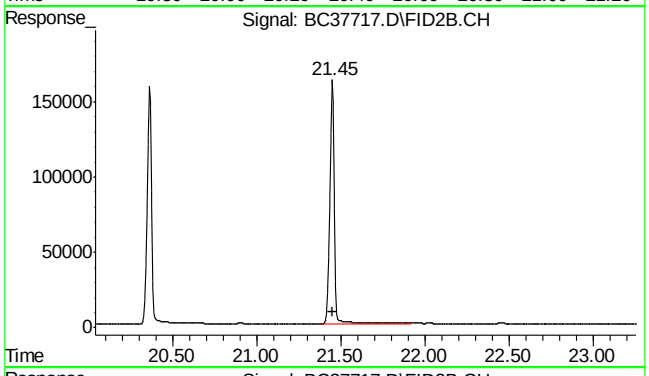
#38 c-26

R.T.: 19.202 min
Delta R.T.: 0.006 min
Response: 292968
Conc: 54.95 ppm



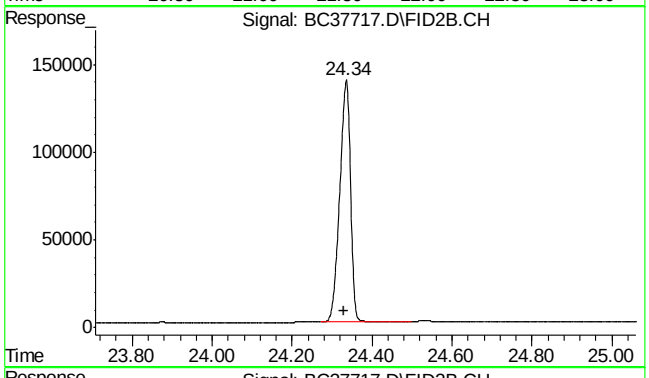
#39 c-28

R.T.: 20.362 min
Delta R.T.: 0.006 min
Response: 287470
Conc: 53.92 ppm



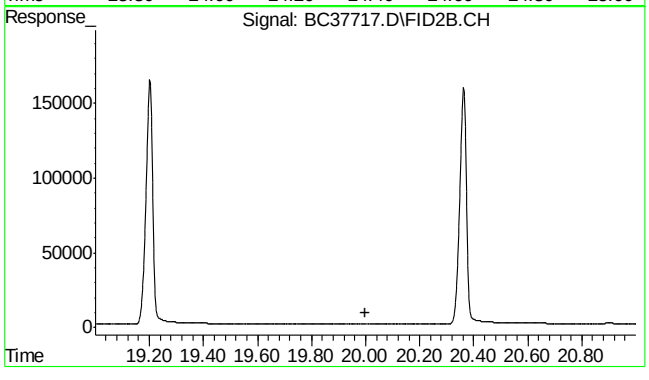
#40 c-30

R.T.: 21.450 min
Delta R.T.: 0.000 min
Response: 297298
Conc: 55.76 ppm m



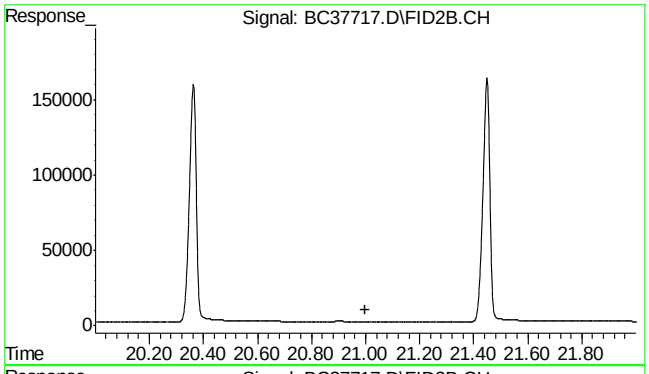
#41 c-36

R.T.: 24.330 min
Delta R.T.: 0.000 min
Response: 259343
Conc: 48.64 ppm m



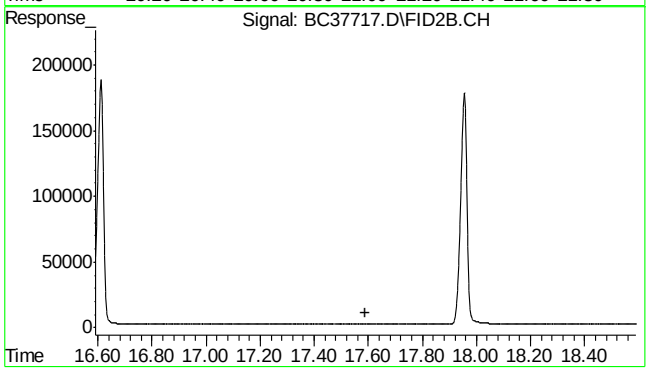
#42 BHT

R.T.: 0.000 min
Exp R.T. : 20.000 min
Response: 0
Conc: N.D.



#43 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  21.000 min
  Response:         0
      Conc:   N.D.
```



#44 BHT

```
      R.T.:   0.000 min
Exp R.T.  :  17.590 min
  Response:         0
      Conc:   N.D.
```

10.5.26

10

ACCUTEST Laboratories F71731

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-8-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic	50ug/ml
GS14999	Aromatic	50ug/ml

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:

Sequence File: 030810.S

Quantitation Methods: EPH030810.M

Instrument Run Batches: GBC1911, BMAEPH,

Data Acquisition Methods: EPHDUAL3 Inj. Vol: 1ul
Inj. Vol:

Date of ICAL: 3-8-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
100	BC37508	cc1891-50	N/A	BCTPH	N/A.	N/A.	C-36 low Not reported
	09						OK, After Maint.
	10						OK.
88/89	11*	EPH lvl 7	N/A.	BMAEPH			bad resolution
	12						After column clip. OK.
76/77	13	ic1911-200					GS15016, GS15023
78/79	14	-100					GS15017, GS15024
80/81	15	icc1911-50					GS15018, GS15025
82/83	16	ic1911-20					GS15019, GS15026
84/85	17	-5					GS15020, GS15027
86/87	18	-2					GS15021, GS15028
88/89	19	-1					GS15022, GS15029 Not ms
90/91	20	icv1911-50					OK.
1/2	21	OP20795-Mb	OP20795		S		
3/4	22	-bs					Naph. break through.
5/6	23	-bsd					
7/8	24	-ms					low COD
9/10	25	-msd					
11/12	26	F71639-1					low COD.
13/14	27	F71732-1					
15/16	28	-2					
17/18	29	-3					
19/20	30	-4					
99/100	31	cc1911-50	N/A.		N/A.		OK
21/22	32	F71732-5	OP20795		S		
23/24	33	OP20758-bs	OP20758		W	ref.	
25/26	34	-bsd					low COD.
94/95	35	ccc1911-50	N/A.		N/A	N/A.	OK.

MTX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: N/A Lot#: N/A.

Review: 3/10/10

GC011-01
Date: 02/26/07

ACCUTEST Laboratories F71731

Accutest Laboratories New England, Inc.

EPH Aliphatic Calibration

Operator KimD
Acq. Method File EPHDUAL3.M
Instrument Name GCBC

Name	BC37513.D 200	BC37514.D 100	BC37515.D 50	BC37516.D 20	BC37517.D 5	BC37518.D 2	BC37519.D 1
c-9	1290820	729764	329812	136418	32392	12744	
c-10	1309125	738764	336345	141172	36243	15903	
c-12	1356212	764442	347665	145074	34369	13528	
c-14	1256697	707142	322893	135162	31922	12507	
c-16	1259111	708369	324694	136689	32388	12770	
c-18	1273132	717572	331037	138544	32877	12908	
Total Mass (Targets)	1200	600	300	120	30	12	
Total area (Targets)	7745097	4366053	1992446	833059	200191	80360	
RF:	6454	7277	6641	6942	6673	6697	

Average RF: 6781 %RSD: **4.26** (25% maximum)
Area 200 Aliphatic Std: 1356145 * Value inserted for 200 ppb std

1-chlorooctadecane	1011941	575948	251354	99422	18487	5340	
c-19	1266593	714853	327878	138515	32487	12486	
c-20	1257558	707576	326532	137971	32114	12165	
c-22	1269666	717025	331122	139353	31663	11257	
c-24	1272929	721599	331926	138192	29766	9156	
c-26	1263920	716158	327047	135054	25836	6454	
c-28	1268125	715561	322913	128305	20137	4139	
c-30	1300336	730604	320650	118252	13463	2554	
c-36	1022089	523218	182616	49297	2936	620	
Total Mass (Targets)	1600	800	400	160	40	16	
Total area (Targets)	9921216	5546594	2470684	984939	188402	58831	
RF:	6201	6933	6177	6156	4710	3677	

Average RF: 5642 %RSD: **21.36** (25% maximum)
Area 200 Aliphatic Std: 1128452 * Value inserted for 200 ppb std

Surrogate mass and response is not included in calculation
JFH 060305

Comments: KD

Signature: JH 3/11/10

ACCUTEST Laboratories F71731

Aromatic Calibration Report

Operator KimD
Acq. Method File EPHDUAL3.M
Instrument Name GCBC

Name		BC37513.D 200	BC37514.D 100	BC37515.D 50	BC37516.D 20	BC37517.D 5	BC37518.D 2	BC37519.D 1
c11-c22 aromatics (Unadj.)								
naphthalene		1310490	641063	320896	122606	37606	12389	5539
2-methylnaphthalene		1279666	623720	310912	119725	36215	11394	5196
2-fluorobiphenyl	s	1171514	572305	286635	108664	32741	10408	4928
acenaphthylene		1296610	636879	320250	122526	37783	12526	5702
2-bromonaphthalene	s	789245	384258	191247	72529	21060	6203	2385
acenaphthene		1342323	660553	332829	128932	40428	13921	6730
fluorene		1281640	622259	309454	116029	34014	10501	4943
phenanthrene		1328053	640708	319891	120191	35143	10578	4437
anthracene		1225798	616938	312719	118833	35191	10259	4740
o-terphenyl	s	1346690	666680	337967	130119	40379	13778	6544
fluoranthene		1253723	633109	321118	123009	36399	11028	4959
pyrene		1282937	654359	331051	126307	37371	11571	5082
benzo(a)anthracene		1093094	533455	269629	99597	25968	6475	2161
chrysene		1164673	605002	311096	118728	32911	10857	4923
benzo(b)fluoranthene		1176630	572792	298869	110933	29538	7728	2807
benzo(k)fluoranthene		1029203	567042	299969	115858	31745	10048	4191
benzo(a)pyrene		1042578	562423	298539	113293	29935	7946	3403
indeno(1,2,3-cd)pyrene		909473	431479	262861	99315	24971	5882	1810
dibenzo(ah)anthracene		711926	413270	245735	92392	22541	5670	1689
benzo(ghi)perylene		686345	403372	265545	106185	28609	7858	2766
Total Mass (Targets)		3400	1700	850	340	85	34	17
Total area (Targets)		19415162	9818423	5131363	1954459	556368	166631	71078
RF:		5710	5776	6037	5748	6546	4901	4181

Average RF: 5557 ✓ %RSD: 12.97 (25% maximum) ✓
Area 200 C11-C22 Aromatics: 1111391 *** Value Inserted for 200 ppb C11 - C22 aromatic std**

Surrogate mass and response is not included in calculation
JFH 060305

Comments: KD

Signature: 3/11/10

ACCUTEST Laboratories F71731

C:\MSDCHEM\1\DATA\BC37520.D

Data File Name **BC37520.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **#VALUE!**
Method File
Sample Name **icv1911-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response		CONTINUING AVG RF	INITIAL AVG RF	% Diff
c-9	49.72	337133.00				
c-10	50.00	339023.00				
c-12	48.75	330573.00	C9 - C18	6686.19	6780.73	1.39
c-14	48.61	329603.00				
c-16	48.97	332083.00	C19-C36	6186.17	5642.26	9.64
c-18	49.77	337443.00				
c-19	58.85	332055.00				
c-20	58.88	332231.00				
c-22	60.03	338707.00		ratio c28/c20 =	96.83	
c-24	58.78	331632.00				
c-26	59.67	336663.00				
c-28	57.01	321693.00				
c-30	55.11	310941.00				
c-36	30.23	170544.00				
1-chlorooctadecane	60.91	252801.00		5056.02	4150.68	21.8
naphthalene #2	47.78	357222.00		7144.44	7477.16	4.45
2-methylnaphthalene #2	52.63	355205.00		7104.10	6748.74	5.27

4531 11.69

CALIBRATION SUMMARY

SEE

JM 3/10/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

10.6.1 10

ACCUTEST Laboratories F71731

C:\MSDCHEM\1\DATA\BC37531.D

Data File Name **BC37531.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/9/2010 6:33**
Method File
Sample Name **cc1911-50**
Sample Multiplier 1

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	47.15	319743.00
c-10	48.04	325713.00
c-12	50.08	339573.00
c-14	46.76	317066.00
c-16	47.13	319562.00
c-18	48.02	325641.00
c-19	57.22	322857.00
c-20	56.99	321545.00
c-22	57.85	326409.00
c-24	57.72	325682.00
c-26	57.30	323274.00
c-28	56.71	319969.00
c-30	55.28	311884.00
c-36	34.10	192393.00
1-chlorooctadecane	59.73	247935.00
naphthalene #2	45.57	340742.00
2-methylnaphthalene #2	48.91	330066.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6490.99	6780.73	4.27
C19-C36	6110.03	5642.26	8.29
ratio c28/c20 =		99.51	
1-chlorooctadecane	4958.70	~~4150.68~~	19.47
naphthalene #2	6814.84	7477.16	8.86
2-methylnaphthalene #2	6601.32	6748.74	2.18

% DIFF
4.27
8.29
19.47
8.86
2.18
% DIFF
4.27
8.29
8.86
2.18

* see calibration summary
3/10/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

ICD

ACCUTEST Laboratories F71731

C:\MSDCHEM\1\DATA\BC37535.D

Data File Name **BC37535.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **#VALUE!**
Method File
Sample Name **ecc1911-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response		CONTINUING AVG RF	INITIAL AVG RF	% DIFF
c-9	46.65	316335.00				
c-10	47.19	319953.00				
c-12	48.79	330808.00	C9 - C18	6322.19	6780.73	6.76
c-14	45.30	307184.00				
c-16	45.49	308464.00	C19-C36	5924.46	5642.26	5.00
c-18	46.29	313913.00				
c-19	55.02	310465.00				
c-20	54.73	308809.00				
c-22	55.58	313617.00		ratio c28/c20 =	101.13	
c-24	55.71	314352.00				
c-26	55.55	313420.00				
c-28	55.35	312290.00				
c-30	54.98	310184.00				
c-36	33.08	186646.00				
1-chlorooctadecane	52.79	239185.00				
naphthalene #2	44.30	333272.00				
2-methylnaphthalene #2	47.48	321913.00				

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD.

ACCUTEST Laboratories F71731

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-10-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
G514998	Aliphatic	50ug/ml
G514989	Aromatic	↓

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:

Sequence File: 031010.S

Quantitation Methods: EPH031010.M

Instrument Run Batches: GBC1913, BMAEPH

Data Acquisition Methods: EPHDUAL3 Inj. Vol: 1uL
Inj. Vol:

Date of ICAL: 3-8-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
94/95	BC37571A	CC1911-50	N/A.	BMAEPH	N/A.	N/A.	OK.
1/2	72	F71639-3	OP20795		S		
3/4	73	-6					
5/6	74	M89605-2	OP20791			Ref.	
7/8	75	OP20805-Mb	OP20805		W	N/A.	Run non fract. for contam.
9/10	76	-bs					
11/12	77	-bsd					
13/14	78	M89601-1					Run non fract for contam.
15/16	79	OP20787-Mb	OP20787				
17/18	80	-bs					
19/20	81	-bsd					
99/100	82	CC1911-50	N/A.		N/A.		benzo(b)fluoranthene & benzo(a)pyrene out high.
21/22	83	OP20787-MS	OP20787		W		OK
23/24	84	-msd					
25/26	85	M89685-4					Samples ND for fluoranthene + pyrene
27/28	86	M89600-1					
29/30	87	-2					
31/32	88	-3					low OTP.
33/34	89	OP20804-Mb	OP20804		S		
35/36	90	-bs					low COD
37/38	91	-bsd					
39/40	92	-MS					
94/95	93	CC1911-50	N/A.		N/A.		benzo(a)pyrene out high.
41/42	94	OP20804msd	OP20804		S		~~of~~ low COD
43/44	95	F71731-5					
45/46	96	F71742-2					
47/48	97	-3					

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A. Lot#: N/A.

1 of 2

GC011-01
Date: 02/26/07

Review: 3/11/10

ACCUTEST Laboratories F71731

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-10-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic	50ng/ml
GS14989	Aromatic	↓

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:

Sequence File: Same as pg 1

Quantitation Methods:

Instrument Run Batches:

Data Acquisition Methods: Inj. Vol:
Inj. Vol:

Date of ICAL: 3-8-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
49/50	BC37598	F71742-4	OP20804	BMAEPH	S	N/A.	
51/52	↓ 99	↓ -5	↓	↓	↓	↓	
94/95	BC37600	ecc1911-50	N/A.	↓	N/A	↓	OK.

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A. Lot#: N/A.

2 of 2

Review: 3/11/10

GC011-01
Date: 02/26/07

C:\MSDCHEM\1\DATA\BC37571A.D

Data File Name **BC37571A.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/10/2010 13:58**
Method File
Sample Name **cc1911-50**
Sample Multiplier 1

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	46.94	318263.00
c-10	47.66	323140.00
c-12	49.64	336592.00
c-14	46.18	313165.00
c-16	46.46	315005.00
c-18	47.20	320083.00
c-19	56.26	317407.00
c-20	55.99	315913.00
c-22	56.83	320646.00
c-24	56.99	321532.00
c-26	56.33	317830.00
c-28	56.00	315969.00
c-30	55.60	313687.00
c-36	39.41	222369.00
1-chlorooctadecane	55.98	253616.00
naphthalene #2	44.92	337876.00
2-methylnaphthalene #2	48.23	326997.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6420.83	6780.73	5.31
C19-C36	6113.38	5642.26	8.35
ratio c28/c20 =		100.02	
	5072.32	3883.40	30.55 *
	6757.52	6447.59	4.80
	6539.94	5810.88	12.50

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
jl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD.

* See continuing calibration report.

3/10/10

3/10/10 4:00 PM C:\MSDchem\Custrpt\Eph50.crt Page 1 of 1

10.6.2 10

C:\MSDCHEM\1\DATA\BC37582.D

Data File Name **BC37582.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/10/2010 21:21**
Method File
Sample Name **cc1911-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	47.49	321993.00
c-10	48.05	325817.00
c-12	50.16	340100.00
c-14	46.71	316745.00
c-16	47.06	319101.00
c-18	47.34	324374.00
c-19	57.04	321816.00
c-20	56.77	320292.00
c-22	57.48	324321.00
c-24	57.61	325065.00
c-26	56.71	319975.00
c-28	56.20	317109.00
c-30	55.35	312286.00
c-36	38.92	219620.00
1-chlorooctadecane	56.54	256156.00
naphthalene #2	45.43	341753.00
2-methylnaphthalene #2	48.79	330761.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6493.77	6780.73	4.28
C19-C36	6151.21	5642.26	9.02
ratio c28/c20 =		99.01	
	5123.12	3883.40 *	31.92
	6835.06	6447.59	6.01
	6615.22	5810.88	13.84

% DIFF
4.28
9.02
31.92
6.01
13.84

% DIFF
4.28
9.02

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

* refer to calibration summary 3/11/10

ACCUTEST Laboratories F71731

C:\MSDCHEM\1\DATA\BC37593.D

Data File Name **BC37593.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/11/2010 4:35**
Method File
Sample Name **cc1911-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	47.45	321752.00
c-10	48.08	325992.00
c-12	50.22	340509.00
c-14	46.78	317197.00
c-16	47.13	319545.00
c-18	47.86	324509.00
c-19	57.10	322193.00
c-20	56.82	320586.00
c-22	57.57	324809.00
c-24	57.73	325714.00
c-26	56.99	321564.00
c-28	55.18	311368.00
c-30	56.01	316031.00
c-36	40.20	226816.00
1-chlorooctadecane	57.06	258522.00
naphthalene #2	45.35	341166.00
2-methylnaphthalene #2	48.75	330489.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6498.35	6780.73	4.16
C19-C36	6172.70	5642.26	9.40

ratio c28/c20 = 97.12

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

% DIFF
4.16
9.40
% DIFF
4.16
9.40

C:\MSDCHEM\1\DATA\BC37600.D

Data File Name **BC37600.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/11/2010 9:13**
Method File
Sample Name **ecc1911-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	47.86	324500.00
c-10	48.59	329447.00
c-12	50.76	344177.00
c-14	47.36	321117.00
c-16	47.74	323685.00
c-18	48.46	328616.00
c-19	57.86	326487.00
c-20	57.53	324869.00
c-22	58.27	328780.00
c-24	57.91	326763.00
c-26	57.56	324778.00
c-28	55.72	314367.00
c-30	56.57	319187.00
c-36	41.62	234835.00
1-chlorooctadecane	58.07	263106.00
naphthalene #2	45.86	345006.00
2-methylnaphthalene #2	49.31	334324.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6571.81	6780.73	3.08
C19-C36	6250.17	5642.26	10.77
ratio c28/c20 =		96.77	

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
rsl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD.

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-11-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic	50ug/ml
GS14989	Aromatic	↓

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:

Sequence File: 031110.S

Quantitation Methods: ~~EPH031110~~ EPH031110.M

Instrument Run Batches: GBC1915, BMAEPH

Data Acquisition Methods: EPHDUAL3 Inj. Vol: 1ul
Inj. Vol:

Date of ICAL: 3-11-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
76/77	BC376004	ic1915-200	N/A.	BMAEPH	N/A.	N/A.	GS15016, GS15023
78/79	05	ic1915-100					17 24
80/81	06	icc1915-50					18 25
82/83	07	ic1915-20					19 26
84/85	08	-5					20 27
86/87	09	-2					21 28
88/89	10	-1					22 29
90/91	11	icv1915-50					cc. GS14831, GS14877
1/2	12	OP20829-mb	OP20829		S		
3/4	13	-bs					
5/6	14	-bsd					
7/8	15	M89605-1					
9/10	16	M89643-2					
11/12	17	OP20804-bs	OP20804			Ref.	
13/14	18	-bsd					
15/16	19	-MS					not spiked
17/18	20	-msd					
19/20	21	M89600-3					
99/100	22	cc1915-50	N/A.		N/A.	N/A.	
21/22	23	F71742-6	OP20804		S		
23/24	24	M89465-2	OP20787		W		low COD.
25/26	25	M89477-4	OP20758			Ref	
27/28	26	-5					
29/30	27	-6					
31/32	28	M89672-3	OP20804		S	N/A	
33/34	29	-4					
35/36	30	-1					

MTX = Matrix: Designate W for water, S for soil, O for oil. Dilution Solvent: N/A. Lot#: N/A.

1 of 2

Review: 2 3/12/10

GC011-01
Date: 02/26/07

ACCUTEST Laboratories F71731

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-11-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic	50ug/ml
GS14989	Aromatic	↓

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:

Sequence File: Same as pg 1

Quantitation Methods:

Instrument Run Batches:

Data Acquisition Methods: Inj. Vol:
Inj. Vol:

Date of ICAL: 3-11-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
37/38	BC37631	M89672-2	OP20804	BMAEAH	S	N/A.	
99/100	↓ 32	ECC1915-50	N/A.	↓	N/A.	↓	OK.

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A. Lot#: N/A.

2 of 2

Review: 3/12/10

GC011-01
Date: 02/26/07

ACCUTEST Laboratories F71731

Aromatic Calibration Report

Operator	KimD
Acq. Method File	EPHDUAL3.M
Instrument Name	GCBC

Name		BC37604.D 200	BC37605.D 100	BC37606.D 50	BC37607.D 20	BC37608.D 5	BC37609.D 2	BC37610.D 1
c11-c22 aromatics (Unadj.)								
naphthalene		1329814	648863	331679	127683	39351	12752	6128
2-methylnaphthalene		1309235	632390	322343	125228	38185	12415	5583
2-fluorobiphenyl	s	1191874	579827	296964	113951	34627	11444	5265
acenaphthylene		1321146	645948	332158	128710	40160	13507	6384
2-bromonaphthalene	s	807700	390712	199404	76872	22789	6812	2765
acenaphthene		1361746	667293	342993	134103	42531	14932	7048
fluorene		1314117	637996	325894	124777	37828	12521	6055
phenanthrene		1362373	652724	334838	129231	38992	12418	5563
anthracene		1295332	635684	329322	128415	39411	12992	5967
o-terphenyl	s	1358950	663685	343933	135080	42500	14694	7108
fluoranthene		1308495	650677	337830	131496	40442	13420	6286
pyrene		1339348	670003	346817	134725	41776	14126	6436
benzo(a)anthracene		1156163	563322	290455	111145	32711	9459	3705
chrysene		1232629	641477	335601	131139	40327	13723	6624
benzo(b)fluoranthene		1145031	604618	317366	122464	36587	11132	4688
benzo(k)fluoranthene		1046464	590419	326445	130423	40801	13642	6250
benzo(a)pyrene		980385	600924	325711	128547	38799	12445	5409
indeno(1,2,3-cd)pyrene			456239	281203	116704	34164	9200	3389
dibenzo(ah)anthracene			441088	277200	114061	32361	8793	3259
benzo(ghi)perylene			411043	275327	119454	36511	10964	4843
Total Mass (Targets)		2800	1700	850	340	85	34	17
Total area (Targets)		17502278	10150708	5433182	2138305	650937	208441	93617
RF:		6251	5971	6392	6289	7658	6131	5507

Average RF: 6314 ✓ %RSD: 9.69 (25% maximum)

Area 200 C11-C22 Aromatics: 1262815 *** Value inserted for 200 ppb C11 - C22 aromatic std**

Surrogate mass and response is not included in calculation
JFH 060305

Comments: KD

2013/12/10

Signature:

Instrument Run Log GBC1915 page 3 of 7
625 of 645
ACCUTEST Laboratories F71731
10.6.3 10

C:\MSDCHEM\1\DATA\BC37611.D

EPH Aliphatic Calibration

Operator KimD
Acq. Method File EPHDUAL3.M
Instrument Name GCBC

Name	BC37604.D 200	BC37605.D 100	BC37606.D 50	BC37607.D 20	BC37608.D 5	BC37609.D 2	BC37610.D 1
c-9	1290139	664671	329242	135363	31662	12384	6611
c-10	1302883	671725	332984	136483	32900	13254	7162
c-12	1365445	702393	341210	135327	32053	12618	6620
c-14	1270125	653334	313899	119124	28355	11275	5879
c-16	1276053	657114	314609	116176	27922	11361	5733
c-18	1292309	666149	319568	117863	28360	11577	5761
Total Mass (Targets)	1200	600	300	120	30	12	6
Total area (Targets)	7796954	4015386	1951520	760336	181252	72469	37766
RF:	6497	6692	6505	6336	6042	6039	6294

Average RF: 6344 ✓ %RSD: **3.85** (25% maximum)
Area 200 Aliphatic Std: 1268746 * Value Inserted for 200 ppb std

1-chlorooctadecane	1053091	552736	254485	91012	20799	7616	3690
c-19	1289553	664153	316695	115749	27837	11216	5576
c-20	1282033	659928	315165	115176	27667	11162	5520
c-22	1295477	666679	318339	116700	27876	10980	5539
c-24	1297601	668315	317965	117830	27894	11101	5454
c-26	1281488	660648	317087	117209	27343	10626	5248
c-28	1278418	658884	311880	116606	25981	9125	4402
c-30	1274191	657869	314303	118838	23229	100	114
c-36	651868	535301	238594	71460	7360	1715	1228
Total Mass (Targets)	1600	800	400	160	40	16	8
Total area (Targets)	9650629	5171777	2450028	889568	195187	66025	33081
RF:	6032	6465	6125	5560	4880	4127	4135

Average RF: 5332 ✓ %RSD: **18.03** (25% maximum) ✓
Area 200 Aliphatic Std: 1066360 * Value Inserted for 200 ppb std

Surrogate mass and response is not included in calculation
JFH 060305

Comments: D.

Signature:

3/12/10

C:\MSDCHEM\1\DATA\BC37611.D

Data File Name **BC37611.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/11/2010 16:53**
Method File
Sample Name **icv1915-50**
Sample Multiplier 1

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	48.70	308915.00
c-10	48.23	305943.00
c-12	45.41	288091.00
c-14	42.62	270375.00
c-16	41.55	263563.00
c-18	41.44	262893.00
c-19	48.81	260251.00
c-20	48.88	260634.00
c-22	49.82	265611.00
c-24	49.20	262342.00
c-26	50.09	267048.00
c-28	49.14	262028.00
c-30	48.60	259148.00
c-36	36.94	196955.00
1-chlorooctadecane	45.68	209421.00
naphthalene #2	42.94	301338.00
2-methylnaphthalene #2	46.21	288868.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	5665.93	6343.73	10.68
C19-C36	5085.04	5331.80	4.63
ratio c28/c20 =		100.53	
	4188.42	4584.42	8.64
	6026.76	7017.65	14.12
	5777.36	6250.63	7.57

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

3/11/10

10.6.3 10

C:\MSDCHEM\1\DATA\BC37622.D

Data File Name **BC37622.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **#VALUE!**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	50.86	322651.00
c-10	51.36	325808.00
c-12	53.32	338278.00
c-14	49.09	311399.00
c-16	49.14	311730.00
c-18	49.81	315984.00
c-19	58.80	313511.00
c-20	58.55	312189.00
c-22	59.26	315984.00
c-24	59.41	316780.00
c-26	58.72	313074.00
c-28	58.77	313326.00
c-30	58.90	314068.00
c-36	47.23	251811.00
1-chlorooctadecane	55.19	253013.00
naphthalene #2	48.27	338749.00
2-methylnaphthalene #2	52.22	326420.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6419.50	6343.73	1.19
C19-C36	6126.86	5331.80	14.91
ratio c28/c20 =		100.36	
	5060.26	4584.42	10.38
	6774.98	7017.65	3.46
	6528.40	6250.63	4.44

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD.

Jan 3/11/10

C:\MSDCHEM\1\DATA\BC37632A.D

Data File Name **BC37632A.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/12/2010 6:41**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	51.38	325951.00
c-10	51.81	328664.00
c-12	52.97	336024.00
c-14	47.53	301524.00
c-16	46.62	295748.00
c-18	46.85	297210.00
c-19	54.97	293100.00
c-20	54.67	291480.00
c-22	55.52	296047.00
c-24	55.58	296362.00
c-26	55.50	295899.00
c-28	54.69	291604.00
c-30	56.29	300138.00
c-36	49.31	262916.00
1-chlorooctadecane	51.06	234101.00
naphthalene #2	47.05	330151.00
2-methylnaphthalene #2	49.99	312440.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6283.74	6343.73	0.95
C19-C36	5818.87	5331.80	9.14
ratio c28/c20 =		100.04	
	4682.02	4584.42	2.13
	6603.02	7017.65	5.91
	6248.80	6250.63	0.03

10.6.3 10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
si 11.30.04-edited for gc13-software rev.
BPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

% DIFF
0.95
9.14
2.13
5.91
0.03
% DIFF
0.95
9.14
2.13
5.91
0.03

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-15-10/3-16-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic	50 ug/ml
GS14989	Aromatic	↓

KD

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:

Sequence File: 031510.S

Quantitation Methods: EPH031510.M

Instrument Run Batches: GBC1917, BMAEPH

Data Acquisition Methods: EPH DUAL 3 Inj. Vol: 1ul
~~PRD DUAL REAR 3~~ Inj. Vol: 1ul

Date of ICAL: 3-11-10 ICAL Verified KD Sample positions verified against sequence: KD.

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
99/100	BC37662	CC1915-50	N/A.	BMAEPH	N/A.	N/A.	OK.
90	63	F71731-5	OP20804		S	↓	Spike check. unfractionated Not reported
1/2	64	OP20804-MS	OP20804		↓	Rerun	
3/4	65	M89634-6	OP20839		W		
5/6	66	M89707-2	↓			↓	
7/8	67	F71711-1	OP20787			Refr	low COD.
9/10	68	M89709-1	~~OP20839~~			Rerun	OP20839
26/27	68A	M89755-1	OP20839				Programer error, wrong vials
25/26	69	↓	↓				low COD/OTP
~~13/14~~ 21/28	70	~~M89709-3~~	OP20787				M89465-2, OP20787
15/16	71	M89709-4	OP20839				
17/18	72	M89754-1	↓		↓	↓	
99/100	73	CC1915-50	N/A.		N/A.	N/A.	OK.
19/20	74	M89754-8	OP20839		W	Rerun	
21/22	75	↓ -9	↓		↓	↓	
94/95	75A 76 KD	CC1915-50	N/A.		N/A.	N/A.	Restart. OK 3-16-10 8:30AM Gripper did not pick up vial
1/2	76	M89754-10	OP20839		W	Rerun	
3/4	77	M89709-2					
5/6	78	↓ -3	↓		↓	↓	
7/8	79 KD	OP20804-MS	OP20804		S	Re-ext.	Hexane & DCM vials switched, rerun
↓	79A	↓	↓		↓	↓	
76/77	80	OP20865-mb	OP20865		W	N/A	
78/79	81	-bs					
80/81	82	↓ -bsd				↓	
82/83	83	M89755-1	↓			Re-ext.	
9/10	84	M89624-2	OP20839			Refr.	low COD.
99/100	85	CC1915-50	N/A.		N/A.	N/A.	OK.

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil.

Dilution Solvent: N/A. Lot#: N/A.

1 of 2

Review: 03/18/10 B8

GC011-01
Date: 02/26/07

10.6.4 10

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-16-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic	50 ug/ml
GS14989	Aromatic	↓

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:
Sequence File: Same as pg 1
Quantitation Methods:
Instrument Run Batches:
Data Acquisition Methods: Inj. Vol:
Inj. Vol:

Date of ICAL: 3-11-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
11/12	BC37686	M89624-4	OP20839	BMAEPH	W	Refr.	
13/14	87	-6					
15/16	88	F71731-1	OP20804		S	N/A.	
17/18	89	-2					
19/20	90	-3					
21/22	91	-4					low 2-BN
23/24	92	-6					
25/26	93	-7					
27/28	94	-8					
29/30	95	-9					low COD
99/100	96	CC1915-50	N/A.		N/A.		ok.
31/32	97	F71731-10	OP20804		S		
33/34	98	M89627-2	OP20791				
35/36	99	-3					
37/38	BC37700	-4					
39/40	01	-17					
41/42	02	M89641-1					
43/44	03	-2					
45/46	04	M89646-1					
94/95	05	ecc1915-50	N/A.		N/A.		ok.

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A. Lot#: N/A.

2 of 2

Review: 03/18/10

GC011-01
Date: 02/26/07

C:\MSDCHEM\1\DATA\BC37662.D

Data File Name **BC37662.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **#VALUE!**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	48.61	308398.00
c-10	51.50	326727.00
c-12	49.10	311481.00
c-14	43.02	272927.00
c-16	41.63	264081.00
c-18	41.64	264164.00
c-19	48.71	259695.00
c-20	48.36	257832.00
c-22	49.30	262853.00
c-24	48.78	260065.00
c-26	48.38	257939.00
c-28	47.73	254504.00
c-30	50.30	268182.00
c-36	39.03	208125.00
1-chlorooctadecane	43.24	198233.00
naphthalene #2	43.63	306197.00
2-methylnaphthalene #2	45.47	284237.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	5825.93	6343.73	8.16
C19-C36	5072.99	5331.80	4.85

ratio c28/c20 = 98.71

KD.

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

C:\MSDCHEM\1\DATA\BC37673.D

Data File Name **BC37673.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/15/2010 18:27**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response		CONTINUING AVG RF	INITIAL AVG RF	% DIFF
c-9	51.15	324476.00				
c-10	51.41	326161.00				
c-12	52.36	332152.00	C9 - C18	6192.80	6343.73	2.38
c-14	46.71	296320.00				
c-16	45.59	289232.00	C19-C36	5638.75	5331.80	5.76
c-18	45.64	289499.00				
c-19	53.55	285536.00				
c-20	53.22	283780.00				
c-22	54.02	288018.00		ratio c28/c20 =	99.01	
c-24	53.90	287395.00				
c-26	53.65	286044.00				
c-28	52.70	280980.00				
c-30	54.69	291571.00				
c-36	47.30	252176.00				
1-chlorooctadecane	49.64	227575.00				
naphthalene #2	46.93	329335.00				
2-methylnaphthalene #2	49.63	310209.00				

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD.

C:\MSDCHEM\1\DATA\BC37675A.D

Data File Name **BC37675A.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/16/2010 8:22**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	50.08	317715.00
c-10	50.51	320407.00
c-12	51.36	325821.00
c-14	45.35	287678.00
c-16	43.92	278645.00
c-18	44.16	280116.00
c-19	51.79	276125.00
c-20	51.62	275249.00
c-22	52.60	280451.00
c-24	52.77	281376.00
c-26	52.59	280423.00
c-28	51.59	275088.00
c-30	53.17	283486.00
c-36	43.74	233231.00
1-chlorooctadecane	46.95	215236.00
naphthalene #2	45.49	319267.00
2-methylnaphthalene #2	47.76	298544.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6034.61	6343.73	4.87
C19-C36	5463.57	5331.80	2.47

ratio c28/c20 = 99.94

03/24/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

C:\MSDCHEM\1\DATA\BC37685.D

Data File Name **BC37685.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/16/2010 15:37**
Method File
Sample Name **cc1917-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	50.62	321144.00
c-10	50.96	323296.00
c-12	52.21	331187.00
c-14	46.78	296729.00
c-16	45.88	291019.00
c-18	46.22	293176.00
c-19	54.21	289035.00
c-20	53.94	287588.00
c-22	54.82	292269.00
c-24	55.19	294280.00
c-26	54.53	290768.00
c-28	53.67	286162.00
c-30	55.12	293867.00
c-36	47.88	255302.00
1-chlorooctadecane	50.06	229479.00
naphthalene #2	46.65	327358.00
2-methylnaphthalene #2	49.45	309094.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6188.50	6343.73	2.45
C19-C36	5723.18	5331.80	7.34
ratio c28/c20 =		99.50	

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD

C:\MSDCHEM\1\DATA\BC37696.D

Data File Name **BC37696.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **#VALUE!**
Method File
Sample Name **cc1917-50**
Sample Multiplier 1

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	51.81	328640.00
c-10	52.17	330984.00
c-12	53.47	339194.00
c-14	47.95	304182.00
c-16	46.90	297499.00
c-18	47.15	299112.00
c-19	55.18	294216.00
c-20	54.85	292465.00
c-22	55.69	296954.00
c-24	55.46	295696.00
c-26	55.35	295095.00
c-28	54.45	290292.00
c-30	56.19	299611.00
c-36	48.74	259876.00
1-chlorooctadecane	50.87	233213.00
naphthalene #2	47.77	335239.00
2-methylnaphthalene #2	50.64	316512.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6332.04	6343.73	0.18
C19-C36	5810.51	5331.80	8.98
ratio c28/c20 =		99.26	

03/18/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD

0.18
8.98

C:\MSDCHEM\1\DATA\BC37705.D

Data File Name **BC37705.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/17/2010 5:03**
Method File
Sample Name **ecc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	50.73	321848.00
c-10	51.25	325093.00
c-12	52.83	335131.00
c-14	47.55	301654.00
c-16	46.49	294899.00
c-18	46.63	295816.00
c-19	54.47	290421.00
c-20	54.11	288507.00
c-22	54.68	291554.00
c-24	54.98	293119.00
c-26	54.46	290368.00
c-28	54.53	290735.00
c-30	56.05	298821.00
c-36	49.16	262103.00
1-chlorooctadecane	49.99	229176.00
naphthalene #2	46.82	328549.00
2-methylnaphthalene #2	49.70	310672.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6248.14	6343.73	1.51
C19-C36	5764.07	5331.80	8.11

ratio c28/c20 = 100.77

03/18/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-17-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic.	50 ug/ml
GS14989	Aromatic.	↓

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:
Sequence File: 031710.S
Quantitation Methods: EPH031710.M

Instrument Run Batches: GBC.1918, BMAEPH

Data Acquisition Methods: EPHDUAL3 Inj. Vol: 1ul
Inj. Vol:

Date of ICAL: 3-11-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
99/100	BC317006	CC1915-50	N/A.	BMAEPH	N/A.	N/A.	OK.
1/2	07	OP20865-MS	OP20865		W		
3/4	08	↓ -msd					
5/6	09	M89958-7					
7/8	10	F71987-1	↓		↓	↓	low COD.
76/77	11	F71731-4	OP20804		S	Refrac	
78/79	12	↓ -9	↓		↓	↓	low COD.
9/10	13	M89626-4	OP20865		W	N/A.	
11/12	14	↓ -5					
13/14	15	M89634-10					low COD.
15/16	16	M89668-1	↓		↓		
99/100	17	CC1915-50	N/A.		N/A.		OK.
51/52	18	OP20875-Mb	OP20875		W		
53/54	19	-bs					
55/56	20	↓ -bsd					
57/58	21	M89936-1					
59/60	22	↓ -2					
61/62	23	M89935-1					
63/64	24	-2					
65/66	25	-3					
67/68	26	↓ -4	↓				
17/18	27	M89668-2	OP20865		↓		
94/95	28	CC1915-50	N/A.		N/A.		OK.
19/20	29	M89668-3	OP20865		W		
21/22	30	M89876-1					
23/24	31	-2					
25/26	32	↓ -3	↓	↓	↓	↓	

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A. Lot#: N/A

1 of 2

GC011-01
Date: 02/26/07

Review: 03/18/10

Accutest Laboratories of New England, Inc.

Instrument: GC 24 (BC)

GC Analysis Log - Extractables

Run Date: 3-17-10

Analyst Signature: KD

Standard Data

Lot #	Description	Conc
GS14998	Aliphatic	50ug/ml
GS14989	Aromatic	"

Column Information: Front : RTX-5 Alternate:
Rear : RTX-5 Alternate:

Sequence File: Same as pg 1

Quantitation Methods:

Instrument Run Batches:

Data Acquisition Methods: Inj. Vol:
Inj. Vol:

Date of ICAL: 3-11-10 ICAL Verified KD Sample positions verified against sequence: KD

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
27/28	BC37733	M89876-4	OP20865	BMAEPH	W	N/A	needs 1:5 dilution.
29/30	34	-5					low COD
31/32	35	-6					
33/34	36	-7					
35/36	37	-8					low COD.
37/38	38	-9					low Surrogates (COD, OTPFB, 2-B
94/95	39	CC1915-50	N/A.		N/A.		OK.
39/40	40	M89707-1	OP20865		W		low COD.
94/95	41	CCC1915-50	N/A.		N/A.		OK.

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A. Lot#: N/A

2 of 2.

Review:

GC011-01
Date: 02/26/07

C:\MSDCHEM\1\DATA\BC37706.D

Data File Name **BC37706.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/17/2010 8:38**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	50.70	321635.00
c-10	51.06	323904.00
c-12	52.87	335372.00
c-14	47.80	303216.00
c-16	46.95	297820.00
c-18	47.37	300493.00
c-19	55.40	295391.00
c-20	55.14	294001.00
c-22	55.91	298099.00
c-24	56.30	300193.00
c-26	55.66	296792.00
c-28	54.63	291293.00
c-30	55.96	298374.00
c-36	48.35	257785.00
1-chlorooctadecane	50.86	233167.00
naphthalene #2	47.09	330495.00
2-methylnaphthalene #2	50.16	313510.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6274.80	6343.73	1.09
C19-C36	5829.82	5331.80	9.34

ratio c28/c20 = 99.08

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD.

03/18/10

C:\MSDCHEM\1\DATA\BC37717.D

Data File Name **BC37717.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/17/2010 16:46**
Method File
Sample Name **cc1915-50**
Sample Multiplier 1

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	51.52	326847.00
c-10	51.90	329257.00
c-12	53.54	339652.00
c-14	48.21	305811.00
c-16	47.14	299061.00
c-18	47.30	300031.00
c-19	55.26	294632.00
c-20	54.85	292446.00
c-22	55.41	295410.00
c-24	55.62	296561.00
c-26	54.95	292968.00
c-28	53.92	287470.00
c-30	55.76	297298.00
c-36	48.64	259343.00
1-chlorooctadecane	50.59	231921.00
naphthalene #2	47.85	335808.00
2-methylnaphthalene #2	50.80	317506.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6335.53	6343.73	0.13
C19-C36	5790.32	5331.80	8.60

ratio c28/c20 = 98.30

KD

03/18/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

10.6.5 10

C:\MSDCHEM\1\DATA\BC37728.D

Data File Name **BC37728.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **#VALUE!**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	51.08	324066.00
c-10	51.71	328004.00
c-12	53.89	341858.00
c-14	48.86	309925.00
c-16	47.59	301869.00
c-18	47.03	298338.00
c-19	55.13	293923.00
c-20	54.55	290871.00
c-22	54.74	291853.00
c-24	54.81	292212.00
c-26	54.15	288705.00
c-28	53.99	287873.00
c-30	54.50	290578.00
c-36	48.63	259275.00
1-chlorooctadecane	49.62	227492.00
naphthalene #2	47.77	335199.00
2-methylnaphthalene #2	50.85	317855.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6346.87	6343.73	0.05
C19-C36	5738.23	5331.80	7.62

ratio c28/c20 = 98.97

03/18/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

C:\MSDCHEM\1\DATA\BC37739.D

Data File Name **BC37739.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/18/2010 7:17**
Method File
Sample Name **cc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response		CONTINUING AVG RF	INITIAL AVG RF	% DIFF
c-9	52.04	330116.00				
c-10	52.68	334194.00				
c-12	54.50	345732.00	C9 - C18	6447.98	6343.73	1.64
c-14	49.24	312363.00				
c-16	48.13	305313.00	C19-C36	5855.95	5331.80	9.83
c-18	48.34	306677.00				
c-19	56.28	300063.00				
c-20	55.85	297789.00				
c-22	56.32	300307.00		ratio c28/c20 =	97.76	
c-24	55.95	298292.00				
c-26	55.60	296469.00				
c-28	54.60	291105.00				
c-30	56.49	301206.00				
c-36	48.23	257150.00				
1-chlorooctadecane	51.37	235482.00				
naphthalene #2	48.70	341733.00				
2-methylnaphthalene #2	51.82	323881.00				

03/18/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

KD

C:\MSDCHEM\1\DATA\BC37741.D

Data File Name **BC37741.D**
Data File Path **C:\MSDCHEM\1\DATA**
Operator **KimD**
Date Acquired **3/18/2010 8:36**
Method File
Sample Name **ecc1915-50**
Sample Multiplier **1**

Aliphatic Continuing Calibration Report

Name	Amount	Target Response
c-9	52.80	334958.00
c-10	53.54	339635.00
c-12	55.58	352555.00
c-14	50.32	319211.00
c-16	49.11	311560.00
c-18	48.67	308740.00
c-19	57.24	305194.00
c-20	56.74	302512.00
c-22	56.97	303761.00
c-24	56.29	300113.00
c-26	55.65	296711.00
c-28	54.26	289325.00
c-30	55.75	297223.00
c-36	47.36	252528.00
1-chlorooctadecane	51.66	236811.00
naphthalene #2	49.56	347798.00
2-methylnaphthalene #2	52.73	329588.00

	CONTINUING AVG RF	INITIAL AVG RF	% DIFF
C9 - C18	6555.53	6343.73	3.34
C19-C36	5868.42	5331.80	10.06

ratio c28/c20 = 95.64

03/18/10

confirmed 04/30/01 JFH
corrected for bht me 4/8/04
ME 7/8/04
edited software revision 11/18/04 jfh
sl 11.30.04-edited for gc13-software rev.
RPD to % diff 042905 jfh
corrected for BHT MB 6/25/05
format edit jfh 083005

Accutest Laboratories of New England, Inc.

Extracted by: FG
Spike Witness:
Concentrated by: BJ AJ
Fractionated by: BJ AJ
Extraction Method: ASE #1 SW 3545A | ASE #2 SW 3545A | ASE #3 SW3545A | ASE # 4 SW3545A | Sonicate SW3550B
Soxhlet: SW 3540C

Date/Time: 8/MAR/2010
Date/Time:
Batch: OP20804
Matrix: Soil/Solid; Sand Lot:
Analysis Method: BHAEPHR
Waste Dilution: SW3580

	Sample	Bottle No.	ASE Position	*Vol/ Comments and Initials	Initial Weight (g)	Final Volume (ml)	Color	**Cleanup/Comments (3660B, 3630, 3665, other)	Received by: Date:
1	OP20804-mb	N/A	1	BJ N	11.30	2.0 l			KD 3/10
2	-bs		2		11.45				
3	-bsd		3		11.20				
4	F71731-5 -ms	2	4		11.20			re-extracted on 8-15-10 KJ	
5	-5-msd	2	5		11.15				
6	-5	2	6		11.50				
7	-1	1	7	N	11.35 ✓	2.0			KD 3-10
8	-2	1	8		11.55 ✓				
9	-3	1	9		11.25 ✓				
10	-4	1	10		11.25 ✓				
11	-6	1	11		11.75 ✓				
12	-7	1	12		11.35 ✓				
13	-8	1	13		11.25 ✓				
14	-9	1	14		11.40 ✓				
15	-10	1	15		11.20 ✓				
16	M71742-2	1	16	BJN	11.25	2.0 l			KD 3/10
17	-3	1	17		11.20				
18	-4	1	18		11.30				
19	-5	1	19		11.45				
20	-6	1	20		11.45				
21	M89672-1		21	N	11.20	2.0			KD 3-10
22	-2		22		11.32				
23	-3		23		11.22				
24	-4		24		11.35				
25									

AJ 03/10/10

Fraction		Lot #	Conc	Volume
Surrogate: EPH	1 of 8	P05609	400 µg/ml	1.0 ml
Surrogate: EPH Fac	3 of 5	P05629	400 µg/ml	1.0 ml
EPH Fac	2 of 5	P05608	400 µg/ml	1.0 ml
Surrogate: EPH Fa	1 of 5	P05647	400 µg/ml	1.0
Surrogate:				
Spike: EPH	1 of 5	P05642	250 µg/ml	2.0 ml
Spike:				
Spike:				
Spike:				

Soxhlet Start/Stop Date/Time:
Filter Paper Lot # 11673459B

H2SO4 Lot #	
MeCl2:	DA572
Hexane:	J.T.B HS1653
MeCl2/Acetone:	C203
Acetone:	
Acetonitrile:	
Na Sulfate Lot #:	B401
Silica Lot #:	
SPE MFG/Lot #:	5319-37
Copper:	
Hydromatrix:	111309 PARLEAN
Florisil:	

Balance ID: AP-4
Water Bath Temp: 80°C/40°C
16.0 l Hexane
16 ml Hexane
Reviewed by:
Tray #: BC-43/BC-52

*Note volume of extract: N = Normal
L = Low

** Circle as applicable: 3660B = Cu cleanup; 3630 = Silica gel cleanup; 3665 = Acid cleanup
**For Soxhlet extraction document date/time started and finished

ACCUTEST Laboratories

Anlaytical Report

Main Data Package - Metals

SDG #CTO088_002

Tetra Tech NUS, Inc.
Tobreena Skeen
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220

Empirical Laboratories, LLC

Kim Kostzer
Project Manager

Wednesday, March 31, 2010

THIS DOCUMENT MEETS NELAC STANDARDS
NELAC Certification #TN473

The results relate only to these samples. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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SDG #CTO088_002

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INORGANIC CASE NARRATIVE
TETRA TECH NUS
NAS Mayport CTO088
SDG# CTO088_002
Work Order #1003096
March, 2010

Empirical Laboratories ID	Client ID
1003096-01	MPT-AOCE-GW-MW07-030810
1003096-02	MPT-AOCE-RB01-030810
1003096-03	MPT-AOCE-GW-MW03-030810

I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in the case narrative, as verified by the following signature.

Betty DeVille
Inorganic Lab Manager

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

I. HOLDING TIMES

A. Sample Preparation and Sample Analysis: All holding times were met.

II. METHODS

The samples were digested using US EPA SW846 method 3005A and analyzed using method 6010B for ICAP metals. The samples were concentrated in order to reach the required detection limits. Note: The "U" flag indicates that the sample concentration is reported down to the laboratory MDL. The "J" flag indicates that the analyte result is between the laboratory reporting limit and the laboratory MDL. All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

III. PREPARATION

All methods performed according to EPA guidelines and Empirical Laboratories Standard Operating Procedures.

IV. ANALYSIS

A. Calibration: All calibration criteria were met.

B. Blanks: All blank criteria were met.

INORGANIC CASE NARRATIVE
TETRA TECH NUS
NAS Mayport CTO088
SDG# CTO088_002
Work Order #1003096
March, 2010

C. **ICSA:** All interference check standard criteria were met.

D. **Spikes:** All matrix spikes quality control criteria were met.

E. **Duplicates:** All duplicate quality control criteria were met.

F. **Samples:** All sample analysis proceeded normally.

G. **Laboratory Control Samples:** All percent recovery quality control criteria were met.

H. **Serial Dilution:** All serial dilution quality control criteria were met.

WORK ORDER

Printed: 3/31/2010 10:56:04AM

1003096

Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Mayport CTO088

Project Manager: Kim Kostzer
Project Number: NAS Mayport CTO088

Report To:
Tetra Tech NUS, Inc. (T010)
Tobrena Skeen
Foster Plaza 7, 661 Anderson Drive
Pittsburgh, PA 15220
Phone: (412) 921-8182
Fax: (412) 921-4040

Invoice To:
Tetra Tech NUS, Inc. (T010)
Accounts Payable
Foster Plaza 7, 661 Anderson Drive
Pittsburgh, PA 15220
Phone :(412) 921-8182
Fax: (412) 921-4040

Date Due: 03/31/2010 16:00 (15 day TAT)

Received By: William Schwab
Date Received: 03/10/2010 08:30

Logged In By: William Schwab
Date Logged In: 03/10/2010 12:20

Samples Received at: **3°C**

Custody Seals	No	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confirr	Yes		

Analysis	Due	TAT	Expires	Comments
1003096-01 MPT-AOCE-GW-MW07-030810 [Water] Sampled 03/08/2010 12:52 Eastern				
MET_ICP_LOW6010B_FULL	03/26/2010 14:00	15	09/04/2010 11:52	As ONLY!
1003096-02 MPT-AOCE-RB01-030810 [Water] Sampled 03/08/2010 13:05 Eastern				
MET_ICP_LOW6010B_FULL	03/26/2010 14:00	15	09/04/2010 12:05	As ONLY!
1003096-03 MPT-AOCE-GW-MW03-030810 [Water] Sampled 03/08/2010 13:25 Eastern				
MET_ICP_LOW6010B_FULL	03/26/2010 14:00	15	09/04/2010 12:25	As ONLY!

Reviewed By

Date

CTO088_002 Metals

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 0958 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00871	NAVSTA: MAYPORT	GREG ROOF	904-636-6125	EMPIRICAL LABS
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
K-Wilt		KEVIN WEICHERT	904-636-6125	621 MAINSTREAM DR, SUITE 270
		CARRIER/WAYBILL NUMBER		CITY, STATE
		7933-3564-3660		NASHVILLE, TN, 37228

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P
PRESERVATIVE USED: HNO3
TYPE OF ANALYSIS: METALS - ARSENIC

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	METALS - ARSENIC	COMMENTS
3/8	1252	MPT-ACCE-GW-MW07-030810				GW	G	1	1	COOL TO 4°C -01
3/8	1305	MPT-ACCE-RB01-030810				QC	G	1	1	RINSATE -02
3/8	1325	MPT-ACCE-GW-MW03-030810				GW	G	1	1	1003096-03

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY K-Wilt	3-9-10	1000	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	3/10/10	08:30

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 3.0°C

4/02R
FORM NO. TtNUS-001

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1003096 Number of Coolers: 1 of 1

Client: TTNUS Project: NAUSTA : May Port

Date/Time Received: **03/10/10 08:30** Date cooler(s) opened: **03/10/10**

Opened By (print): **WILLIAM SCHWAB** (signature): [signature]

Circle response below as appropriate

1. How did the samples arrive?: FedEx UPS DHL Hand Delivered

EL Courier Other: _____

If applicable, enter airbill number here: 3660

2. Were custody seals on outside of cooler(s)? ..... Yes (No)

How many: — Seal date: — Seal Initials: —

3. Were custody seals unbroken and intact at the date and time of arrival? ..... Yes No (N/A)
4. Were custody papers sealed in a plastic bag included in the sample cooler? ..... (Yes) No N/A
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (Yes) No N/A
6. Did you sign custody papers in the appropriate place for acceptance? ..... (Yes) No N/A
7. Was project identifiable from custody papers? ..... (Yes) No N/A
8. If required, was enough ice present in the cooler(s)? ..... (Yes) No N/A

Type of Coolant: (WET) DRY BLUE NONE Temperature of Samples upon Receipt: 3.0°C

Dates samples were logged-in: **03/10/10**

9. Initial this form to acknowledge login of sample(s): (Name): Will Schwab (Initial): WS
10. Were all bottle lids intact and sealed tightly? ..... (Yes) No N/A
11. Did all bottles arrive unbroken? ..... (Yes) No N/A
12. Was all required bottle label information complete? ..... (Yes) No N/A
13. Did all bottle labels agree with custody papers? ..... (Yes) No N/A
14. Were correct containers used for the analyses indicated? ..... (Yes) No N/A
15. Were preservative levels correct in all applicable sample containers? ..... (Yes) No N/A
16. Was residual chlorine present in any applicable sample containers? ..... Yes No (N/A)
17. Was sufficient amount of sample sent for the analyses required? ..... (Yes) No N/A
18. Was headspace present in any included VOA vials? ..... Yes No (N/A)

pH < 2 for all metals

If Non-Conformance issues were present, list by sample ID: _____

_____ CAR#: _____

Sample Delivery Group Assignment Form

CLIENT: Tetra Tech NUS, Inc. (T010)
PROJECT NAME: NAS Mayport CTO088
SDG #: CTO088_002
MATRIX: Ground Water

QC LEVEL: EDD/IVQSM
Report Due: 3/31/2010
Client Sample Count: 3

Sample Type	Sampled	Received	Lab ID	Client ID	SW6010B	SW6010C	SW9081
Client Sample	3/8/2010	3/10/2010	1003096-01	MPT-AOCE-GW-MW07-030810	X		
Client Sample	3/8/2010	3/10/2010	1003096-02	MPT-AOCE-RB01-030810	X		
Client Sample	3/8/2010	3/10/2010	1003096-03	MPT-AOCE-GW-MW03-030810	X		

ANALYSIS DATA SHEET

MPT-AOCE-GW-MW07-030810

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Ground Water
Sampled: 03/08/10 12:52
% Solids: 0.00

SDG: CTO088_002
Project: NAS Mayport CTO088
Laboratory ID: 1003096-01
Received: 03/10/10 08:30

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-38-2	Arsenic	18.6	0.750	1.50	1		SW6010B	0C19009	03/22/10 16:18

ANALYSIS DATA SHEET

MPT-AOCE-RB01-030810

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Ground Water
Sampled: 03/08/10 13:05
% Solids: 0.00

SDG: CTO088_002
Project: NAS Mayport CTO088
Laboratory ID: 1003096-02
Received: 03/10/10 08:30

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-38-2	Arsenic		0.750	1.50	1	U	SW6010B	0C19009	03/22/10 16:28

ANALYSIS DATA SHEET

MPT-AOCE-GW-MW03-030810

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Ground Water
Sampled: 03/08/10 13:25
% Solids: 0.00

SDG: CTO088_002
Project: NAS Mayport CTO088
Laboratory ID: 1003096-03
Received: 03/10/10 08:30

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-38-2	Arsenic	4.88	0.750	1.50	1		SW6010B	0C19009	03/22/10 16:33

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP

SDG: CTO088_002
Project: NAS Mayport CTO088
Calibration: 0083004
Sequence: 0C08206

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
0C08206-ICV1	Arsenic	1000	968.9	96.9	ug/L	+/- 10.00%
0C08206-CCV1	Arsenic	1000	993.9	99.4	ug/L	+/- 10.00%
0C08206-CCV2	Arsenic	1000	1018	102	ug/L	+/- 10.00%
0C08206-CCV3	Arsenic	1000	1006	101	ug/L	+/- 10.00%
0C08206-CCV4	Arsenic	1000	1016	102	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: CTO088_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Mayport CTO088

Instrument ID: ME-ICP

Calibration: 0083004

Sequence: 0C08206

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
0C08206-CRL2	Arsenic	5.000	4.275	85.5	ug/L	80 - 120
0C08206-CRL5	Arsenic	5.000	4.645	92.9	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Sequence: 0C08206

SDG: CTO088_002
Project: NAS Mayport CTO088
Calibration: 0083004

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
0C08206-ICB1	Arsenic	0.3993	3.00	6.00	ug/L	U	SW6010B
0C08206-CCB1	Arsenic	-0.122	3.00	6.00	ug/L	U	SW6010B
0C19009-BLK1	Arsenic	0.00621	0.750	1.50	ug/L	U	SW6010B
0C08206-CCB2	Arsenic	0.174	3.00	6.00	ug/L	U	SW6010B
0C08206-CCB3	Arsenic	-0.948	3.00	6.00	ug/L	U	SW6010B
0C08206-CCB4	Arsenic	0.0989	3.00	6.00	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Instrument ID: ME-ICP

Sequence: 0C08206

SDG: CTO088_002

Project: NAS Mayport CTO088

Calibration: 0083004

Lab Sample ID	Analyte	True	Found	%R	Units
0C08206-IFA1	Arsenic		-0.47		ug/L
0C08206-IFB1	Arsenic	100.0	118.56	119	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

MPT-AOCE-GW-MW03-030810

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: CTO088_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Mayport CTO088

Matrix: Water

Batch: 0C19009

% Solids:

Source Sample Name: **1003096-03**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Arsenic	125.0	4.880	141.6	109		80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

PT-AOCE-GW-MW03-0308

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Water
Batch: 0C19009
Preparation: MET_3005A_LOW

SDG: CTO088_002
Project: NAS Mayport CTO088
Laboratory ID: 0C19009-PS1
Lab Source ID: 1003096-03
Initial/Final: 100 mL / 25 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Arsenic	**348.5**	**19.52**	**250.0**	**132**	**85 - 115**

DUPLICATES
SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Water
Batch: 0C19009
Preparation: MET_3005A_LOW
Source Sample Name: MPT-AOCE-GW-MW07-030810

SDG: CTO088_002
Project: NAS Mayport CTO088
Laboratory ID: 0C19009-DUP3
Lab Source ID: 1003096-01
Initial/Final: 100 mL / 25 mL
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/L)	DUPLICATE CONCENTRATION (ug/L)	RPD %	Q	METHOD
Arsenic	20	18.6	18.82	1.01		SW6010B

LCS / LCS DUPLICATE RECOVERY
SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	CTO088_002
Client:	Tetra Tech NUS, Inc. (T010)	Project:	NAS Mayport CTO088
Matrix:	Water		
Batch:	0C19009	Laboratory ID:	0C19009-BS1
Preparation:	MET_3005A_LOW	Initial/Final:	100 mL / 25 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Arsenic	5.000	4.238	84.8	80 - 120

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC
SDG: CTO088_002
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Mayport CTO088
Matrix: Water
Instrument: ME-ICP

Analyte	MDL	MRL	Units	Method
Arsenic	0.750	1.50	ug/L	SW6010B

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010) SDG: CTO088_002

Project: NAS Mayport CTO088

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	15	10000	

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ICP ID Number: Thermo ICP 6500 Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Ag
Aluminum	396.1	0.0000000	0.0000000	-0.0000600	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0000300	0.0000000	0.0000000
Arsenic	189.0	0.0000120	0.0000000	0.0000020	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000090	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.7	0.0000000	0.0000000	0.0014470	0.0000000	0.0000000
Cadmium	228.8	0.0000000	0.0000000	-0.0000050	0.0021850	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000040	0.0056080	0.0000000
Cobalt	228.6	0.0000000	0.0000000	0.0000340	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0002930	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000140	0.0287450	0.0000000
Molybdenum	202.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.6	0.0000000	0.0000000	-0.0000040	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Silicon	251.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000020	0.0000000	0.0000000
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	0.0000080	0.0000000	0.0000000
Tin	189.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.9	0.0000000	0.0000000	0.0000000	0.0209590	0.0000000
Vanadium	292.4	0.0000000	0.0000000	-0.0000160	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0013660	0.0000000

Comments: _____

Form XI (PART 1) - IN

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ICP ID Number: Thermo ICP 6500 Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: As	B	Ba	Be	Cd
Aluminum	396.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.8	0.0045780	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments: _____

Form XI (PART 2) - IN

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ICP ID Number: Thermo ICP 6500 Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Co	Cr	Cu	K	Mn
Aluminum	396.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0060190	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	-0.0126310	0.0000000	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.8	-0.0025320	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0002500
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0009430
Silicon	251.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000650
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0040870	0.0002110	0.0000000	0.0000000	0.0014070
Tin	189.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.9	0.0000000	0.0002290	0.0000000	0.0000000	0.0000000
Vanadium	292.4	0.0000000	-0.0023860	0.0000000	0.0000000	-0.0003500
Zinc	206.2	0.0000000	-0.0003020	0.0000000	0.0000000	0.0000000

Comments: _____

Form XI (PART 2) - IN

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ICP ID Number: Thermo ICP 6500 Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Mo	Na	Ni	Pb	Sb
Aluminum	396.1	0.0317300	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	-0.0012790	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	-0.0001200	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	-0.0000250	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.7	-0.0001730	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.8	0.0000000	0.0000000	-0.0000880	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.6	-0.0012520	0.0000000	0.0001940	0.0000000	0.0000000
Copper	224.7	0.0018210	0.0000000	-0.0088250	0.0030200	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.6	-0.0000220	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000830	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	-0.0000590	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	-0.0001060	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.2	0.0001730	0.0000000	0.0000000	0.0000000	0.0000000

Comments: _____

Form XI (PART 2) - IN

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ICP ID Number: Thermo ICP 6500 Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Se	Sn	Ti	Tl	V
Aluminum	396.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0004790	0.0000000	-0.0017000
Arsenic	189.0	0.0000000	0.0000000	0.0000750	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	-0.0017020
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0001050
Boron	249.7	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000030
Cadmium	228.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000560
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000700
Cobalt	228.6	0.0000000	0.0000000	0.0021640	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0002300	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000300
Molybdenum	202.0	0.0000000	0.0000000	0.0000000	0.0000000	-0.0001550
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000220	0.0000000	0.0000540
Silicon	251.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	-0.0064060
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	-0.0012830	0.0000000	0.0004040
Tin	189.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	0.0000000	0.0000000	0.0006540	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments: _____

Form XI (PART 2) - IN

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ICP ID Number: Thermo ICP 6500 Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Aluminum	396.1	0.0000000				
Antimony	206.8	0.0000000				
Arsenic	189.0	0.0000000				
Barium	233.5	0.0000000				
Beryllium	313.0	0.0000000				
Boron	249.7	0.0000000				
Cadmium	228.8	0.0000000				
Calcium	317.9	0.0000000				
Chromium	267.7	0.0000000				
Cobalt	228.6	0.0000000				
Copper	224.7	0.0000000				
Iron	261.1	0.0000000				
Lead	220.3	0.0000000				
Magnesium	279.0	0.0000000				
Manganese	257.6	0.0000000				
Molybdenum	202.0	0.0000000				
Nickel	231.6	0.0000000				
Potassium	766.4	0.0000000				
Selenium	196.0	0.0000000				
Silicon	251.6	0.0000000				
Silver	328.0	0.0000000				
Sodium	330.2	0.0000000				
Strontium	421.5	0.0000000				
Thallium	190.8	0.0000000				
Tin	189.9	0.0000000				
Titanium	334.9	0.0000000				
Vanadium	292.4	0.0000000				
Zinc	206.2	0.0000000				

Comments: _____

Form XI (PART 2) - IN

PREPARATION BATCH SUMMARY
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: CTO088_002
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Mayport CTO088
Batch: 0C19009 Batch Matrix: Water
Preparation: MET_3005A_LOW

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Blank	0C19009-BLK1	03/19/10 10:47	100.00	25.00
LCS	0C19009-BS1	03/19/10 10:47	100.00	25.00
MPT-AOCE-GW-MW07-030810	0C19009-DUP3	03/19/10 10:47	100.00	25.00
MPT-AOCE-GW-MW03-030810	0C19009-MS1	03/19/10 10:47	100.00	25.00
MPT-AOCE-GW-MW03-030810	0C19009-PS1	03/19/10 10:47	100.00	25.00
MPT-AOCE-GW-MW07-030810	1003096-01	03/19/10 10:47	100.00	25.00
MPT-AOCE-RB01-030810	1003096-02	03/19/10 10:47	100.00	25.00
MPT-AOCE-GW-MW03-030810	1003096-03	03/19/10 10:47	100.00	25.00

ANALYSIS SEQUENCE SUMMARY
SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	CTO088_002
Client:	Tetra Tech NUS, Inc. (T010)	Project:	NAS Mayport CTO088
Sequence:	0C08206	Instrument:	ME-ICP
Calibration:	0083004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	0C08206-CAL1	032210A-001	03/22/10 10:20
Cal Standard	0C08206-CAL2	032210A-002	03/22/10 10:26
Cal Standard	0C08206-CAL6	032210A-006	03/22/10 10:47
Cal Standard	0C08206-CAL3	032210A-011	03/22/10 11:20
Initial Cal Check	0C08206-ICV1	032210B-001	03/22/10 12:36
Initial Cal Blank	0C08206-ICB1	032210B-002	03/22/10 12:43
Instrument RL Check	0C08206-CRL2	032210B-004	03/22/10 12:56
Interference Check A	0C08206-IFA1	032210B-011	03/22/10 13:31
Interference Check B	0C08206-IFB1	032210B-013	03/22/10 13:44
Calibration Check	0C08206-CCV1	032210B-015	03/22/10 13:56
Calibration Blank	0C08206-CCB1	032210B-016	03/22/10 14:03
Blank	0C19009-BLK1	032210B-017	03/22/10 14:08
LCS	0C19009-BS1	032210B-018	03/22/10 14:13
Calibration Check	0C08206-CCV2	032210B-027	03/22/10 15:01
Calibration Blank	0C08206-CCB2	032210B-028	03/22/10 15:08
Calibration Check	0C08206-CCV3	032210B-038	03/22/10 16:05
Calibration Blank	0C08206-CCB3	032210B-039	03/22/10 16:13
MPT-AOCE-GW-MW07-030810	1003096-01	032210B-040	03/22/10 16:18
MPT-AOCE-RB01-030810	1003096-02	032210B-042	03/22/10 16:28
MPT-AOCE-GW-MW03-030810	1003096-03	032210B-043	03/22/10 16:33
MPT-AOCE-GW-MW03-030810	0C19009-MS1	032210B-044	03/22/10 16:38
MPT-AOCE-GW-MW03-030810	0C19009-PS1	032210B-045	03/22/10 16:43
MPT-AOCE-GW-MW07-030810	0C19009-DUP3	032210B-047	03/22/10 16:56
Instrument RL Check	0C08206-CRL5	032210B-051	03/22/10 17:18
Calibration Check	0C08206-CCV4	032210B-053	03/22/10 17:28
Calibration Blank	0C08206-CCB4	032210B-054	03/22/10 17:35

Sample Name: SEQ-CAL1 Acquired: 3/22/2010 10:20:55 Type: Cal
Method: DuoEnviroMethodNEW(v1189) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00003**	**-.00012**	**-.00030**	**.00005**	**.00481**	**.00000**	**.00131**
Stddev	.00001	.00005	.00008	.00000	.00043	.0000	.00004
%RSD	30.482	39.157	25.574	5.1387	8.9509	1640.1	3.0393
#1	.00003	-.00014	-.00023	.00005	.00433	.00000	.00129
#2	.00002	-.00006	-.00038	.00005	.00516	.00001	.00136
#3	.00004	-.00015	-.00028	.00005	.00495	-.00001	.00129

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.05883**	**.00357**	**.00000**	**.00066**	**.00003**	**-.00108**	**-.00001**
Stddev	.00093	.00085	.00000	.00000	.00002	.00009	.00000
%RSD	1.5844	23.749	65.976	.55924	60.998	8.0697	43.351
#1	.05905	.00451	.00000	.00067	.00005	-.00102	-.00001
#2	.05780	.00286	.00000	.00066	.00001	-.00118	-.00001
#3	.05962	.00335	.00000	.00066	.00003	-.00103	-.00001

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00001**	**.00075**	**.00101**	**-.00137**	**-.00130**	**-.00090**	**.00148**
Stddev	.00000	.00033	.00007	.00027	.00073	.00046	.00010
%RSD	21.552	43.273	7.1391	19.892	56.094	50.645	6.4524
#1	.00001	.00113	.00098	-.00119	-.00179	-.00136	.00137
#2	.00001	.00055	.00109	-.00168	-.00046	-.00091	.00149
#3	.00001	.00058	.00096	-.00123	-.00165	-.00044	.00156

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00096**	**.0001**	**.00002**	**-.00031**	**.00003**	**.00117**
Stddev	.00015	.0001	.00003	.00065	.00000	.00034
%RSD	15.094	98.35	122.77	212.09	10.633	29.332
#1	-.00085	.0000	.00001	.00035	.00003	.00096
#2	-.00092	.0000	.00005	-.00096	.00004	.00099
#3	-.00113	.0002	.00000	-.00032	.00003	.00157

Sample Name: SEQ-CAL1 Acquired: 3/22/2010 10:20:55 Type: Cal
Method: DuoEnviroMethodNEW(v1189) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1207.8	518730.	47924.
Stddev	4.3	3721.	303.
%RSD	.35732	.71736	.63267
#1	1212.6	514510.	47770.
#2	1204.2	521560.	47729.
#3	1206.7	520120.	48273.

Sample Name: SEQ-CAL2 Acquired: 3/22/2010 10:26:05 Type: Cal
Method: DuoEnviroMethodNEW(v1189) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00095**	**.10516**	**.03693**	**.00062**	**.50851**	**.17844**	**.03970**	**.92125**
Stddev	.00001	.00032	.00049	.00001	.00082	.00024	.00008	.00264
%RSD	.59930	.30578	1.3333	1.2084	.16127	.13244	.19627	.28613
#1	.00096	.10497	.03668	.00062	.50787	.17824	.03962	.92361
#2	.00095	.10553	.03661	.00063	.50822	.17870	.03977	.91841
#3	.00094	.10499	.03749	.00062	.50943	.17839	.03970	.92174

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mn2576	Mo2020	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.55345**	**.00283**	**.00914**	**.05336**	**.01578**	**.02293**	**.40499**	**.32940**
Stddev	.00020	.00004	.00006	.00019	.00013	.00025	.00109	.00012
%RSD	.03657	1.3270	.60817	.36385	.82094	1.0757	.26994	.03778
#1	.55368	.00281	.00911	.05318	.01584	.02278	.40619	.32942
#2	.55334	.00287	.00920	.05333	.01563	.02322	.40473	.32952
#3	.55332	.00280	.00910	.05357	.01587	.02280	.40405	.32927

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10240**	**.08132**	**.04092**	**.05010**	**.2038**	**.01481**	**.08297**	**.00445**
Stddev	.00020	.00054	.00078	.00050	.0005	.00004	.00049	.00005
%RSD	.19518	.66990	1.9108	1.0071	.2390	.28770	.58949	1.2271
#1	.10217	.08144	.04010	.04984	.2034	.01480	.08337	.00441
#2	.10248	.08073	.04166	.04978	.2037	.01477	.08311	.00451
#3	.10255	.08180	.04099	.05068	.2044	.01485	.08242	.00442

Elem	Zn2062
Units	Cts/S
Avg	**.40724**
Stddev	.00275
%RSD	.67507
#1	.40442
#2	.40739
#3	.40991

Sample Name: SEQ-CAL2 Acquired: 3/22/2010 10:26:05 Type: Cal
Method: DuoEnviroMethodNEW(v1189) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1202.1	509510.	47952.
Stddev	9.3	4328.	96.
%RSD	.77422	.84935	.20035
#1	1191.6	512840.	47895.
#2	1205.6	504620.	48063.
#3	1209.2	511080.	47899.

Sample Name: SEQ-CAL6 Acquired: 3/22/2010 10:47:51 Type: Cal
Method: DuoEnviroMethodNEW(v1189) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	B_2496	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.7854**	**.07557**	**17.386**	**85.128**	**54.619**	**.26197**	**.88826**	**1.9984**
Stddev	.0064	.00007	.034	.208	.147	.00100	.00361	.0181
%RSD	.16851	.09235	.19473	.24488	.26995	.38018	.40609	.90808
#1	3.7928	.07553	17.408	85.353	54.782	.26096	.88410	2.0177
#2	3.7823	.07553	17.402	85.088	54.495	.26295	.89027	1.9958
#3	3.7812	.07565	17.347	84.942	54.581	.26199	.89042	1.9816

Elem	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**40.034**	**32.038**	**10.147**	**8.8155**	**4.0829**	**5.0313**	**20.32**	**1.4714**
Stddev	.118	.092	.045	.0227	.0177	.0148	.28	.0028
%RSD	.29507	.28570	.44042	.25718	.43439	.29423	1.400	.19186
#1	40.144	32.132	10.164	8.8417	4.0982	5.0341	20.65	1.4685
#2	40.049	32.033	10.182	8.8022	4.0871	5.0444	20.21	1.4741
#3	39.909	31.949	10.097	8.8026	4.0635	5.0153	20.12	1.4716

Elem	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	**8.5616**	**.43054**	**36.165**
Stddev	.0186	.00050	.068
%RSD	.21677	.11676	.18753
#1	8.5828	.43000	36.185
#2	8.5483	.43100	36.220
#3	8.5536	.43062	36.089

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1111.4**	**493490.**	**47677.**
Stddev	5.0	1352.	179.
%RSD	.44928	.27388	.37454
#1	1105.8	491940.	47471.
#2	1115.3	494150.	47776.
#3	1113.1	494380.	47783.

Sample Name: SEQ-CAL3 Acquired: 3/22/2010 11:20:03 Type: Cal
Method: DuoEnviroMethodNEW(v1189) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02348**	**.22086**	**.38078**	**.01645**	**9.2496**	**1.7682**	**1.5958**	**8.9552**
Stddev	.00029	.00048	.00301	.00017	.0355	.0086	.0083	.0364
%RSD	1.2144	.21841	.79130	1.0256	.38359	.48604	.52309	.40659
#1	.02350	.22063	.38256	.01649	9.2502	1.7682	1.5978	8.9582
#2	.02375	.22054	.37730	.01659	9.2139	1.7596	1.5867	8.9173
#3	.02318	.22142	.38248	.01626	9.2849	1.7768	1.6031	8.9900

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.2562**	**.02565**	**.09431**	**.09940**	**.17839**	**.04612**	**.21158**	**3.9450**
Stddev	.0195	.00040	.00078	.00048	.00006	.00020	.00290	.0165
%RSD	.37181	1.5661	.82410	.48177	.03128	.43353	1.3718	.41881
#1	5.2521	.02575	.09450	.09934	.17843	.04605	.21207	3.9450
#2	5.2391	.02600	.09496	.09895	.17833	.04596	.21420	3.9285
#3	5.2775	.02521	.09345	.09990	.17841	.04634	.20846	3.9615

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.0065**	**3.1029**	**.98307**	**.88062**	**.41542**	**.96820**	**2.051**	**.14632**
Stddev	.0053	.0129	.00353	.00526	.00133	.00583	.006	.00071
%RSD	.13150	.41653	.35860	.59764	.32012	.60189	.2849	.48417
#1	4.0023	3.1035	.98474	.88164	.41624	.96955	2.053	.14640
#2	4.0049	3.0897	.97902	.87493	.41388	.96182	2.044	.14558
#3	4.0124	3.1155	.98545	.88531	.41613	.97324	2.055	.14699

Elem	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	**.84192**	**.04272**	**3.5695**
Stddev	.00472	.00053	.0109
%RSD	.56064	1.2464	.30529
#1	.84104	.04287	3.5628
#2	.83771	.04316	3.5636
#3	.84702	.04212	3.5821

Sample Name: SEQ-CAL3 Acquired: 3/22/2010 11:20:03 Type: Cal
Method: DuoEnviroMethodNEW(v1189) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1121.4	483010.	47869.
Stddev	7.6	3491.	175.
%RSD	.68086	.72285	.36657
#1	1117.7	481860.	47866.
#2	1130.2	480230.	48046.
#3	1116.4	486930.	47695.

Sample Name: SEQ-ICV Acquired: 3/22/2010 12:36:22 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0681

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**499.83**	**10035.**	**968.89**	F **1104.9**	**966.89**	**982.18**	**51.706**
Stddev	.96	23.	11.58	4.7	7.67	.86	.162
%RSD	.19289	.22628	1.1953	.42445	.79344	.08760	.31354
#1	499.33	10046.	957.97	1101.9	959.58	981.33	51.549
#2	500.94	10049.	967.65	1110.3	966.21	983.05	51.873
#3	499.22	10009.	981.03	1102.4	974.87	982.15	51.695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				1000.0			
Range				±50.000			

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	**1047.6**	**973.05**	F **944.52**	**1043.1**	**10236.**	**9.9237**	**49.086**
Stddev	9.8	8.03	3.22	4.9	18.	.0582	.207
%RSD	.93811	.82568	.34067	.46722	.17910	.58647	.42096
#1	1038.1	964.72	940.80	1038.3	10216.	9.9622	48.909
#2	1046.9	973.69	946.49	1048.0	10241.	9.9522	49.313
#3	1057.8	980.75	946.25	1043.0	10251.	9.8568	49.037
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1000.0				
Range			±-50.000				

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**1018.5**	**987.60**	**51.591**	**964.91**	**961.65**	**1007.5**	**1012.1**
Stddev	2.7	9.41	.218	7.55	8.47	11.7	9.2
%RSD	.26606	.95298	.42192	.78272	.88088	1.1574	.91325
#1	1015.9	977.82	51.738	957.20	953.20	994.93	1002.9
#2	1021.3	988.39	51.694	965.22	961.59	1009.7	1012.0
#3	1018.3	996.59	51.341	972.30	970.14	1017.9	1021.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-ICV Acquired: 3/22/2010 12:36:22 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0681

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**973.37**	**997.6**	**961.24**	F **946.24**	**966.43**	**959.82**
Stddev	8.33	3.0	3.82	6.86	4.27	6.84
%RSD	.85628	.2966	.39736	.72545	.44136	.71219
#1	964.43	1001.	965.50	939.67	963.13	955.13
#2	974.78	995.1	960.10	945.69	971.25	956.67
#3	980.92	996.7	958.11	953.37	964.92	967.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value				1000.0		
Range				±-50.000		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1081.5**	**479290.**	**47428.**
Stddev	12.2	2430.	85.
%RSD	1.1297	.50699	.17869
#1	1095.6	481200.	47346.
#2	1075.2	476560.	47424.
#3	1073.7	480130.	47515.

Sample Name: SEQ-ICB Acquired: 3/22/2010 12:43:38 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.00879**	**1.8188**	**.39932**	**1.6270**	**.05539**	**.09379**	**.00415**
Stddev	.08123	2.8694	.77047	.0875	.05718	.06106	.00363
%RSD	924.54	157.77	192.95	5.3780	103.23	65.102	87.501
#1	.00946	-.38921	.02792	1.6520	.10771	.02625	.00054
#2	-.07278	.78337	1.2851	1.6993	-.00565	.14508	.00780
#3	.08967	5.0622	-.11511	1.5297	.06411	.11004	.00411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **1.2097**	**-.08788**	**.07623**	F **3.3905**	**.45927**	**.02758**	**.01115**
Stddev	.1096	.09555	.16554	.1228	.45308	.01569	.00278
%RSD	9.0621	108.74	217.16	3.6208	98.654	56.901	24.956
#1	1.3363	-.12171	.04870	3.5273	.54347	.03736	.01241
#2	1.1474	.01999	-.07382	3.2897	.86434	.03590	.01308
#3	1.1455	-.16191	.25380	3.3546	-.03001	.00948	.00796
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000			1.5000			
Low Limit	-1.0000			-1.5000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.14268**	**.30194**	**.01768**	**.12913**	**.58856**	**-.31411**	**.12137**
Stddev	.05073	.17884	.00509	.21924	.62437	.67357	.62736
%RSD	35.552	59.231	28.794	169.77	106.08	214.44	516.90
#1	.11883	.50819	.01181	.38224	.06354	-1.0320	.66104
#2	.10828	.18985	.02081	.00661	.42317	-.21438	.27005
#3	.20094	.20778	.02042	-.00146	1.2790	.30404	-.56698
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-ICB Acquired: 3/22/2010 12:43:38 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.04141**	**.1396**	**.10045**	**-.82006**	**.05436**	**.03103**
Stddev	.31517	.0604	.07373	.92874	.03820	.18517
%RSD	761.07	43.27	73.401	113.25	70.265	596.74
#1	.01231	.0709	.14876	-.05015	.09609	.03443
#2	-.37998	.1634	.13701	-1.8515	.04585	-.15581
#3	.24344	.1845	.01558	-.55848	.02113	.21447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1291.8**	**521780.**	**48293.**
Stddev	14.1	4456.	232.
%RSD	1.0919	.85404	.48068
#1	1295.3	517100.	48474.
#2	1303.9	525980.	48031.
#3	1276.3	522240.	48372.

Sample Name: SEQ-CRL Acquired: 3/22/2010 12:56:42 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**2.1226**	**219.02**	**4.2754**	**37.730**	**90.670**	**5.0218**	**5.4263**
Stddev	.2095	1.75	.2673	.293	.224	.0355	.0383
%RSD	9.8720	.80103	6.2514	.77725	.24721	.70678	.70538
#1	2.0621	219.84	4.4782	37.771	90.889	5.0382	5.4326
#2	1.9499	220.22	4.3755	38.000	90.441	5.0461	5.4610
#3	2.3557	217.01	3.9725	37.418	90.682	4.9811	5.3853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **6.1507**	**11.475**	**5.0194**	F **13.830**	**107.30**	**4.9943**	**4.8426**
Stddev	.0280	.083	.0590	.186	2.19	.0019	.0151
%RSD	.45588	.72486	1.1751	1.3465	2.0392	.03721	.31108
#1	6.1504	11.532	5.0248	13.657	108.16	4.9930	4.8495
#2	6.1790	11.380	5.0754	14.027	108.93	4.9934	4.8530
#3	6.1229	11.514	4.9578	13.805	104.82	4.9964	4.8253
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value	5.0000			10.000			
Range	±1.0000			±2.0000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**16.025**	**13.755**	**5.0893**	**9.2338**	**3.4987**	**13.173**	F **3.4999**
Stddev	.104	.073	.0085	.0675	.2870	.149	.8833
%RSD	.65203	.52974	.16774	.73092	8.2036	1.1305	25.239
#1	15.925	13.787	5.0865	9.2150	3.2665	13.040	2.5093
#2	16.133	13.672	5.0825	9.1777	3.8196	13.146	3.7843
#3	16.018	13.807	5.0989	9.3087	3.4101	13.334	4.2060
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							5.0000
Range							±-1.0000

Sample Name: SEQ-CRL Acquired: 3/22/2010 12:56:42 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.583**	**.0976**	**15.462**	**7.2948**	**12.287**	**18.555**
Stddev	.303	.0350	.405	.5039	.092	.234
%RSD	1.0999	35.85	2.6176	6.9076	.75269	1.2636
#1	27.263	.0644	15.816	6.8768	12.204	18.760
#2	27.622	.0942	15.549	7.1534	12.386	18.300
#3	27.866	.1342	15.021	7.8543	12.270	18.605
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1253.9**	**516150.**	**48740.**
Stddev	6.3	2020.	183.
%RSD	.50418	.39126	.37455
#1	1258.9	518380.	48616.
#2	1256.0	514440.	48654.
#3	1246.8	515640.	48950.

Sample Name: SEQ-IFA Acquired: 3/22/2010 13:31:34 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**-.08728**	**484450.**	**-.46670**	**-55.428**	**.94465**	**.03658**	**457.21**
Stddev	.26799	1825.	2.5887	4.658	.29065	.02712	6.58
%RSD	307.06	.37674	554.69	8.4039	30.769	74.138	1.4398
#1	-.16748	482790.	1.8724	-50.562	1.2477	.00595	450.89
#2	-.30601	484150.	-3.2480	-59.846	.91800	.04625	456.71
#3	.21166	486410.	-.02448	-55.875	.66823	.05755	464.03

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	**-1.6242**	**.39950**	**-1.5505**	**-3.8119**	**183470.**	**-.00812**	**458.45**
Stddev	.2827	.30315	.1359	.2730	910.	.00641	1.33
%RSD	17.408	75.882	8.7678	7.1629	.49597	78.978	.29019
#1	-1.6987	.06032	-1.7029	-4.1271	183960.	-.00574	458.69
#2	-1.3116	.49415	-1.5068	-3.6483	182420.	-.00323	457.02
#3	-1.8622	.64405	-1.4417	-3.6604	184030.	-.01537	459.65

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**6.1453**	**1.0994**	**.03470**	**-4.6671**	**5.6061**	**2.4021**	**1.9271**
Stddev	.0319	.3676	.00169	.3610	.4609	1.8780	3.6005
%RSD	.51966	33.435	4.8769	7.7358	8.2207	78.180	186.84
#1	6.1696	1.4151	.03283	-5.0692	6.1069	2.1001	-1.2585
#2	6.1571	1.1872	.03612	-4.5616	5.1998	4.4127	5.8335
#3	6.1091	.69584	.03515	-4.3706	5.5117	.69342	1.2063

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.53798**	**2.715**	**-2.1704**	**-1.3866**	**.82172**	**17.159**
Stddev	.70626	.042	.5889	1.3602	.19892	.512
%RSD	131.28	1.559	27.132	98.093	24.208	2.9859
#1	-1.1893	2.689	-2.4125	-2.8747	1.0470	16.674
#2	.21270	2.692	-1.4991	-1.0777	.67027	17.107
#3	-.63732	2.764	-2.5995	-.20745	.74788	17.695

Sample Name: SEQ-IFA Acquired: 3/22/2010 13:31:34 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	816.13	430500.	45047.
Stddev	.66	1962.	93.
%RSD	.08145	.45571	.20729
#1	816.84	430770.	45068.
#2	816.04	432320.	45129.
#3	815.52	428420.	44945.

Sample Name: SEQ-IFB Acquired: 3/22/2010 13:44:58 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**211.49**	**509110.**	**118.56**	**-66.320**	**544.33**	**459.10**	**471.45**
Stddev	1.92	3904.	3.44	4.590	9.77	1.40	1.95
%RSD	.90944	.76685	2.9039	6.9208	1.7956	.30545	.41384
#1	212.88	505050.	115.44	-71.169	539.88	459.44	470.25
#2	212.30	512840.	117.99	-65.747	537.57	460.30	470.40
#3	209.30	509460.	122.26	-62.043	555.54	457.56	473.70
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **1239.5**	**501.49**	**427.69**	**546.12**	**188550.**	**.03019**	**472.06**
Stddev	24.3	8.79	6.53	6.75	480.	.00339	1.32
%RSD	1.9635	1.7536	1.5264	1.2368	.25434	11.214	.27893
#1	1223.9	496.53	434.08	551.91	188470.	.02709	470.85
#2	1227.0	496.30	427.96	547.76	189060.	.02968	473.46
#3	1267.5	511.65	421.03	538.70	188110.	.03380	471.87
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	1000.0						
Range	±200.00						

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**462.89**	**-.18866**	**.07726**	**976.07**	**52.726**	**703.17**	F **60.668**
Stddev	6.12	.08156	.00115	16.58	2.931	18.39	1.021
%RSD	1.3230	43.228	1.4938	1.6985	5.5583	2.6155	1.6826
#1	468.86	-.12959	.07791	967.14	49.869	689.74	60.125
#2	463.18	-.28172	.07794	965.87	52.585	695.64	61.845
#3	456.62	-.15469	.07593	995.20	55.725	724.13	60.033
Check ?	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							50.000
Range							±10.000

Sample Name: SEQ-IFB Acquired: 3/22/2010 13:44:58 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.36080**	**2.829**	**-2.4225**	**92.808**	**444.26**	**1008.7**
Stddev	.58436	.029	.2158	4.564	5.59	13.1
%RSD	161.96	1.038	8.9094	4.9176	1.2574	1.3024
#1	-.59679	2.807	-2.4725	88.248	450.03	1005.0
#2	.30465	2.863	-2.1860	92.799	443.86	997.80
#3	-.79025	2.817	-2.6089	97.376	438.88	1023.3
Check ?	None	None	None	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**780.27**	**421800.**	**44318.**
Stddev	18.37	3591.	194.
%RSD	2.3543	.85126	.43824
#1	794.02	418440.	44493.
#2	787.39	421390.	44109.
#3	759.41	425580.	44352.

Sample Name: SEQ-CCV Acquired: 3/22/2010 13:56:24 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb
Avg	**495.45**	**10015.**	**993.93**	**1062.5**	**936.71**	**985.92**	**51.258**	**1032.4**
Stddev	.67	25.	9.80	2.0	9.15	3.93	.204	9.3
%RSD	.13514	.25364	.98639	.18438	.97661	.39898	.39877	.89770
#1	495.45	10004.	983.15	1060.3	927.57	987.34	51.426	1022.3
#2	496.11	10045.	996.33	1063.3	936.70	988.95	51.318	1034.4
#3	494.77	9998.0	1002.3	1063.9	945.87	981.47	51.030	1040.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppb	ppb
Avg	**951.96**	**945.51**	**1035.2**	**10138.**	**9.8683**	**48.124**	**1018.1**	**978.16**
Stddev	9.67	1.99	3.9	49.	.0477	.089	.9	9.95
%RSD	1.0153	.21068	.38029	.47978	.48316	.18448	.08791	1.0168
#1	942.40	946.78	1031.2	10164.	9.8144	48.082	1018.2	968.45
#2	951.76	946.54	1035.3	10168.	9.9049	48.226	1019.0	977.71
#3	961.73	943.21	1039.1	10082.	9.8857	48.064	1017.2	988.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.565**	**960.82**	**962.82**	**992.24**	**1008.6**	**960.14**	**1003.**	**972.85**
Stddev	.316	8.36	11.61	9.69	14.3	7.96	2.	3.78
%RSD	.62422	.87028	1.2060	.97646	1.4166	.82859	.2393	.38900
#1	50.290	952.42	949.77	982.10	992.47	952.12	1004.	977.04
#2	50.910	960.90	966.67	993.23	1013.8	960.27	1005.	971.84
#3	50.496	969.15	972.02	1001.4	1019.6	968.03	1000.	969.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/22/2010 13:56:24 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**982.00**	**961.19**	**962.59**
Stddev	9.39	2.62	9.59
%RSD	.95640	.27272	.99670
#1	972.01	959.19	953.69
#2	983.32	960.23	961.33
#3	990.66	964.16	972.76
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1105.6**	**490570.**	**47916.**
Stddev	11.0	2487.	77.
%RSD	.99833	.50686	.16059
#1	1118.1	492500.	47888.
#2	1101.6	491440.	47857.
#3	1097.1	487760.	48003.

Sample Name: SEQ-CCB Acquired: 3/22/2010 14:03:51 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**-.00844**	**2.7280**	**-.12227**	**2.1695**	**.09273**	**.07103**	**.00423**
Stddev	.19147	3.3385	.48992	.1533	.04609	.02421	.00261
%RSD	2268.6	122.38	400.69	7.0670	49.701	34.084	61.697
#1	-.05179	6.5753	.16577	2.2987	.06340	.04521	.00122
#2	-.17452	.59410	.15537	2.0001	.06894	.07466	.00569
#3	.20099	1.0146	-.68795	2.2096	.14585	.09322	.00579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **1.4195**	**.00276**	**.14213**	F **3.5104**	**.24196**	**.02763**	**.01387**
Stddev	.2339	.06990	.12619	.2011	2.4431	.00425	.00578
%RSD	16.481	2533.5	88.784	5.7285	1009.7	15.395	41.644
#1	1.1707	.02852	.15293	3.4162	-1.5113	.02419	.01787
#2	1.4527	.05613	.01089	3.3737	3.0325	.03239	.00725
#3	1.6351	-.07637	.26257	3.7413	-.79535	.02632	.01650
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000			1.5000			
Low Limit	-1.0000			-1.5000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.17345**	**.53729**	**.02093**	**.03309**	**.93988**	**.08488**	**-.05958**
Stddev	.07600	.18148	.00181	.16192	.84245	.32226	.27642
%RSD	43.815	33.777	8.6335	489.37	89.634	379.66	463.96
#1	.11466	.71564	.01886	-.11015	1.9018	.38188	-.19551
#2	.14642	.35283	.02180	.00064	.33352	-.25777	-.24171
#3	.25927	.54340	.02214	.20877	.58429	.13053	.25849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-CCB Acquired: 3/22/2010 14:03:51 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.26748**	**.0866**	**.26250**	**-1.0185**	**.14844**	**.14885**
Stddev	.26520	.0633	.03834	.0738	.09561	.04860
%RSD	99.146	73.13	14.606	7.2440	64.413	32.651
#1	.03622	.0465	.22417	-.99558	.07249	.18852
#2	-.38534	.0537	.26246	-1.1010	.11702	.16340
#3	-.45331	.1596	.30085	-.95882	.25581	.09464
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1281.2**	**518060.**	**48115.**
Stddev	6.3	2861.	223.
%RSD	.48927	.55226	.46434
#1	1285.6	515400.	48228.
#2	1283.9	521090.	47858.
#3	1274.0	517690.	48259.

Sample Name: 0C19009-BLK1 Acquired: 3/22/2010 14:08:47 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBW031910C /4X

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**-.09203**	**13.497**	**.02484**	**.37104**	**-.00049**	**.11135**	**.00657**
Stddev	.11263	2.481	.02242	.18435	.06991	.04785	.00279
%RSD	122.40	18.383	90.251	49.685	14159.	42.973	42.416
#1	-.21300	15.530	.01797	.28891	.01830	.15794	.00968
#2	-.07289	14.228	.04989	.24203	-.07788	.11377	.00571
#3	.00982	10.732	.00666	.58218	.05810	.06233	.00431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **1.2775**	**-.12698**	**-.12922**	F **4.3485**	**4.4026**	**.02547**	**.04034**
Stddev	.0556	.04642	.11101	.0533	1.0979	.00722	.00573
%RSD	4.3483	36.554	85.901	1.2254	24.937	28.361	14.209
#1	1.3259	-.17930	-.00129	4.3011	4.9722	.01768	.04578
#2	1.2168	-.11091	-.19997	4.4062	5.0987	.02680	.03435
#3	1.2898	-.09074	-.18642	4.3384	3.1370	.03194	.04089
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000			4.0000			
Low Limit	-1.0000			-4.0000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.22115**	**.05910**	**.02310**	**.50149**	**.66784**	**-.49672**	**-1.2797**
Stddev	.01863	.11265	.00195	.04538	.59928	.59530	.6126
%RSD	8.4240	190.63	8.4446	9.0481	89.735	119.85	47.868
#1	.23943	.08601	.02485	.54949	.62928	.06484	-.95997
#2	.22182	.15586	.02346	.45929	.08876	-.43418	-1.9860
#3	.20219	-.06458	.02099	.49569	1.2855	-1.1208	-.89321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 0C19009-BLK1 Acquired: 3/22/2010 14:08:47 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBW031910C /4X

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.21965**	**.1046**	**.24309**	**-.60953**	**-.02145**	**.59150**
Stddev	.12190	.0182	.18791	.71185	.07120	.17097
%RSD	55.497	17.37	77.298	116.79	332.01	28.905
#1	.31054	.1235	.16818	-.59285	.05484	.41077
#2	.08113	.1028	.45690	-1.3296	-.08614	.61307
#3	.26728	.0873	.10420	.09383	-.03303	.75067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1321.1	531310.	49621.
Stddev	25.8	3880.	81.
%RSD	1.9528	.73026	.16401
#1	1336.0	534560.	49715.
#2	1336.0	532360.	49566.
#3	1291.3	527020.	49583.

Reprint using correct Check Table

Sample Name: 0C19009-BS1 Acquired: 3/22/2010 14:13:43 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSW031910C /4X

84.8%

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**21.238**	**181.35**	F **16.951**	**85.359**	F **134.05**	**3.9121**	**2.3963**
Stddev	.234	2.22	.493	.802	.24	.0114	.0206
%RSD	1.1017	1.2223	2.9097	.93985	.17868	.29197	.85854
#1	21.479	181.98	16.472	86.131	133.94	3.9217	2.3817
#2	21.223	178.89	16.924	85.418	134.32	3.8994	2.3873
#3	21.012	183.19	17.457	84.530	133.89	3.9152	2.4198
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value			20.000		160.00		
Range			±-3.0000		±-24.000		

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	**10.674**	F **33.578**	**14.888**	F **26.301**	**84.637**	**2.4712**	**2.2607**
Stddev	.094	.174	.126	.137	2.353	.0108	.0197
%RSD	.87957	.51913	.84958	.52156	2.7802	.43840	.86923
#1	10.778	33.763	14.978	26.439	82.799	2.4798	2.2470
#2	10.648	33.554	14.941	26.165	83.824	2.4747	2.2518
#3	10.596	33.417	14.743	26.300	87.289	2.4590	2.2832
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value		40.000		20.000			
Range		±-6.0000		±3.0000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**41.630**	F **64.745**	**2.5279**	**34.460**	**19.582**	F **16.842**	**18.127**
Stddev	.194	.183	.0049	.194	.363	.292	.482
%RSD	.46637	.28233	.19398	.56217	1.8552	1.7365	2.6602
#1	41.796	64.919	2.5327	34.577	19.707	16.605	18.448
#2	41.678	64.554	2.5229	34.566	19.173	16.752	18.361
#3	41.416	64.762	2.5281	34.236	19.867	17.169	17.573
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		80.000				20.000	
Range		±-12.000				±-3.0000	

Sample Name: 0C19009-BS1 Acquired: 3/22/2010 14:13:43 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSW031910C /4X

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**68.253**	**79.36**	**74.509**	F **16.154**	**37.142**	**34.141**
Stddev	.426	.16	.470	.308	.290	.202
%RSD	.62449	.1964	.63128	1.9039	.78023	.59179
#1	68.555	79.18	73.966	16.075	37.426	33.979
#2	67.766	79.43	74.756	15.893	37.151	34.367
#3	68.439	79.47	74.804	16.493	36.847	34.077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value				20.000		
Range				±-3.0000		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1316.6**	**514660.**	**49086.**
Stddev	8.1	2039.	307.
%RSD	.61704	.39625	.62528
#1	1307.3	512370.	49423.
#2	1320.6	516290.	49015.
#3	1322.0	515330.	48821.

Sample Name: SEQ-CCV Acquired: 3/22/2010 15:01:31 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb
Avg	**506.85**	**10365.**	**1018.5**	**1077.6**	**952.83**	**971.08**	**49.574**	**1052.4**
Stddev	3.03	4.	3.1	7.1	.95	1.07	.119	1.5
%RSD	.59752	.03479	.30265	.66013	.09962	.10978	.24026	.14322
#1	510.18	10362.	1021.6	1085.6	953.91	972.18	49.442	1053.9
#2	504.26	10369.	1015.4	1071.8	952.12	970.05	49.607	1050.9
#3	506.12	10364.	1018.6	1075.5	952.46	971.00	49.673	1052.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppb	ppb
Avg	**947.71**	**955.39**	**1088.3**	**9910.9**	**10.441**	**46.833**	**1017.6**	**995.95**
Stddev	2.27	10.19	6.9	22.4	.002	.042	9.8	2.88
%RSD	.23923	1.0666	.63717	.22615	.01903	.08900	.95840	.28898
#1	948.74	966.88	1096.1	9914.2	10.438	46.857	1028.9	998.79
#2	945.11	951.81	1082.8	9887.0	10.442	46.785	1012.4	993.03
#3	949.28	947.46	1086.1	9931.4	10.442	46.857	1011.6	996.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**52.594**	**968.10**	**993.36**	**1010.4**	**1043.2**	**982.94**	**1044.**	**1001.7**
Stddev	.104	2.49	3.33	2.2	3.6	.47	2.	1.1
%RSD	.19809	.25671	.33567	.22246	.34249	.04811	.1653	.10840
#1	52.703	970.12	996.60	1012.1	1045.8	983.40	1046.	1000.5
#2	52.582	965.32	993.54	1007.9	1039.1	982.45	1043.	1002.0
#3	52.495	968.85	989.94	1011.3	1044.6	982.97	1044.	1002.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/22/2010 15:01:31 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**1007.5**	**965.60**	**961.05**
Stddev	3.6	8.93	1.96
%RSD	.35772	.92440	.20379
#1	1011.6	975.84	959.08
#2	1005.0	959.49	961.09
#3	1005.7	961.46	962.99
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1091.7**	**493380.**	**48395.**
Stddev	4.0	3443.	61.
%RSD	.36855	.69784	.12598
#1	1087.2	490000.	48324.
#2	1095.1	496890.	48427.
#3	1092.7	493240.	48433.

Sample Name: SEQ-CCB Acquired: 3/22/2010 15:08:54 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**-.01506**	**1.2641**	**.17432**	**1.8492**	**.14304**	**.03650**	**-.00123**
Stddev	.15602	1.4411	.91303	.1360	.06514	.01358	.00058
%RSD	1036.0	114.00	523.76	7.3563	45.539	37.195	47.414
#1	.00099	.98831	1.2279	1.6959	.21371	.03178	-.00076
#2	-.17849	2.8232	-.31868	1.8963	.13001	.02591	-.00189
#3	.13232	-.01921	-.38622	1.9555	.08540	.05180	-.00105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **1.3539**	**-.05923**	**.22306**	F **3.4112**	**.31174**	**.03023**	**.01181**
Stddev	.0766	.13391	.08213	.2125	2.5925	.00733	.01386
%RSD	5.6569	226.09	36.818	6.2294	831.63	24.263	117.40
#1	1.3402	.08528	.23622	3.1736	1.9911	.03432	-.00419
#2	1.4364	-.08384	.13515	3.5830	-2.6741	.03460	.01933
#3	1.2851	-.17912	.29782	3.4770	1.6183	.02176	.02027
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000			1.5000			
Low Limit	-1.0000			-1.5000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.15999**	**.40673**	**.01735**	**-.00371**	**.71552**	**-.36982**	**-.21799**
Stddev	.10440	.11418	.00205	.08414	.93280	.46536	.76869
%RSD	65.252	28.073	11.806	2267.4	130.37	125.83	352.64
#1	.09828	.46255	.01533	.04416	.71024	.04770	.28782
#2	.10116	.48226	.01943	.04557	-.21463	-.87152	.16079
#3	.28052	.27538	.01731	-.10087	1.6509	-.28563	-1.1026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-CCB Acquired: 3/22/2010 15:08:54 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.16852**	**.0778**	**.01719**	**-1.3965**	**.14218**	**.18717**
Stddev	.64964	.0135	.03748	.2297	.14024	.17570
%RSD	385.51	17.33	217.99	16.445	98.635	93.868
#1	.43336	.0681	-.00870	-1.4021	.00618	.38367
#2	.64390	.0722	.00010	-1.1642	.28631	.04520
#3	-.57171	.0932	.06017	-1.6234	.13406	.13265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1334.9**	**542320.**	**50062.**
Stddev	8.3	4142.	345.
%RSD	.62370	.76369	.68882
#1	1344.0	543670.	49694.
#2	1333.0	537680.	50114.
#3	1327.6	545630.	50377.

Sample Name: SEQ-CCV Acquired: 3/22/2010 16:05:40 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb
Avg	**500.15**	**10143.**	**1005.9**	**1048.6**	**951.60**	**961.49**	**50.856**	**1042.5**
Stddev	.76	128.	2.8	.2	2.09	12.25	.461	2.9
%RSD	.15109	1.2650	.28331	.01753	.22002	1.2737	.90703	.28222
#1	500.79	10210.	1006.8	1048.4	950.72	969.92	51.277	1041.2
#2	499.32	10224.	1008.2	1048.6	953.99	967.11	50.929	1045.9
#3	500.34	9994.8	1002.7	1048.7	950.08	947.44	50.363	1040.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppb	ppb
Avg	**949.64**	**944.39**	**1044.8**	**9844.5**	**9.9799**	**46.851**	**1016.1**	**995.98**
Stddev	2.15	.84	1.9	127.3	.1144	.494	.7	2.41
%RSD	.22599	.08905	.18308	1.2929	1.1463	1.0554	.07112	.24153
#1	948.37	945.09	1044.9	9939.0	10.016	47.359	1015.5	994.38
#2	952.12	943.46	1046.7	9894.7	10.072	46.823	1015.8	998.75
#3	948.44	944.63	1042.9	9699.8	9.8518	46.371	1016.9	994.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**49.867**	**967.79**	**985.94**	**984.07**	**1016.9**	**975.86**	**1011.**	**984.93**
Stddev	.774	2.01	4.65	2.33	4.0	3.70	15.	11.51
%RSD	1.5526	.20729	.47186	.23684	.39548	.37886	1.487	1.1684
#1	50.270	966.76	980.66	981.83	1013.4	973.79	1019.	989.31
#2	50.356	970.11	989.44	986.48	1021.3	980.13	1020.	993.60
#3	48.974	966.51	987.73	983.90	1016.1	973.67	993.4	971.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/22/2010 16:05:40 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**987.73**	**953.28**	**983.25**
Stddev	1.73	1.02	2.69
%RSD	.17561	.10692	.27375
#1	986.27	952.18	981.99
#2	987.27	953.46	986.34
#3	989.65	954.19	981.42
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1119.3**	**503220.**	**48765.**
Stddev	2.3	1018.	564.
%RSD	.20339	.20227	1.1568
#1	1121.8	504260.	48292.
#2	1117.3	503160.	48614.
#3	1119.0	502230.	49389.

Sample Name: SEQ-CCB Acquired: 3/22/2010 16:13:19 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.01244**	**-.40492**	**-.94836**	**.88154**	**-.04563**	**.01808**	**-.00581**
Stddev	.08380	2.0173	1.4871	.28054	.04922	.00816	.00101
%RSD	673.47	498.20	156.81	31.824	107.86	45.170	17.397
#1	-.06657	1.8955	.55820	.93645	-.00444	.02299	-.00544
#2	.10032	-1.2380	-2.4152	.57760	-.10015	.02259	-.00503
#3	.00358	-1.8723	-.98812	1.1306	-.03231	.00865	-.00695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **1.1323**	**-.12791**	**.07208**	F **2.8257**	**.16910**	**.02105**	**.00612**
Stddev	.0444	.09170	.19712	.0424	1.3840	.00246	.01473
%RSD	3.9186	71.693	273.48	1.4993	818.47	11.670	240.64
#1	1.1170	-.05674	-.12769	2.7770	-.36376	.02178	-.00924
#2	1.0976	-.23140	.26644	2.8463	-.86929	.01831	.02012
#3	1.1823	-.09559	.07749	2.8538	1.7403	.02306	.00748
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000			1.5000			
Low Limit	-1.0000			-1.5000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.02881**	**.20807**	**.00726**	**-.19619**	**.57641**	**-.80577**	**-.82602**
Stddev	.01152	.05717	.00213	.19979	.74607	.22497	.55677
%RSD	39.997	27.476	29.293	101.83	129.44	27.920	67.405
#1	.01637	.27408	.00586	-.00032	1.3300	-.70245	-.90090
#2	.03912	.17520	.00971	-.39968	-.16191	-1.0638	-.23559
#3	.03094	.17492	.00621	-.18858	.56113	-.65102	-1.3416
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-CCB Acquired: 3/22/2010 16:13:19 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.21111**	**-.0035**	**.12940**	**-.98090**	**-.02990**	**-.02785**
Stddev	.22743	.0178	.22587	.23351	.05299	.00567
%RSD	107.73	508.5	174.56	23.806	177.26	20.347
#1	-.47189	.0170	.32490	-.71665	.01865	-.02274
#2	-.10758	-.0137	.18116	-1.1595	-.08643	-.02687
#3	-.05387	-.0139	-.11786	-1.0666	-.02190	-.03394
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1309.4	537530.	49623.
Stddev	3.7	2756.	242.
%RSD	.28138	..51271	.48853
#1	1313.2	537410.	49895.
#2	1305.8	540340.	49429.
#3	1309.3	534840.	49545.

Sample Name: 1003096-01 Acquired: 3/22/2010 16:18:31 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**-.43088**	F **-75.579**	**74.513**	**551.37**	**39.122**	**.06845**	F **680.81**
Stddev	.18152	9.789	1.684	4.72	.198	.03111	7.40
%RSD	42.127	12.952	2.2607	.85521	.50547	45.453	1.0865
#1	-.56769	-86.882	73.757	554.63	39.130	.08142	680.28
#2	-.49999	-69.920	73.339	545.97	39.315	.03295	673.69
#3	-.22496	-69.934	76.443	553.52	38.920	.09098	688.45

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	**4.4039**	**.68810**	**5.1396**	**8.4229**	**16927.**	**52.456**	**63.427**
Stddev	.0396	.21634	.1518	.2990	96.	.166	.349
%RSD	.89946	31.440	2.9538	3.5500	.56528	.31603	.54959
#1	4.3587	.66286	5.0716	8.7631	16944.	52.647	63.596
#2	4.4208	.91596	5.3136	8.2020	16823.	52.345	63.026
#3	4.4323	.48549	5.0337	8.3036	17012.	52.378	63.659

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**208.62**	**39.260**	**470.13**	**4.7283**	**-1.0866**	**2.1088**	**1.7203**
Stddev	2.02	.281	4.25	.2818	.7721	.8156	.5532
%RSD	.96694	.71694	.90449	5.9608	71.056	38.676	32.157
#1	208.67	39.292	474.98	4.4157	-1.6748	2.2854	1.8150
#2	206.58	38.964	467.08	4.8061	-.21229	1.2194	2.2200
#3	210.61	39.525	468.31	4.9630	-1.3726	2.8216	1.1258

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.1285**	**4183.**	F **-10.018**	**-1.5764**	**2.8063**	**7.0512**
Stddev	.5758	15.	.803	1.8777	.1287	.0899
%RSD	51.026	.3477	8.0173	119.12	4.5848	1.2746
#1	-1.2132	4198.	-9.1431	-2.1808	2.8807	7.0162
#2	-1.6573	4181.	-10.191	.52914	2.8805	6.9842
#3	-.51503	4169.	-10.722	-3.0775	2.6577	7.1533

Sample Name: 1003096-01 Acquired: 3/22/2010 16:18:31 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	805.31	410770.	44821.
Stddev	4.90	5252.	136.
%RSD	.60808	1.2785	.30449
#1	810.92	407010.	44783.
#2	803.14	416770.	44972.
#3	801.88	408540.	44708.

Sample Name: 1003096-02 Acquired: 3/22/2010 16:28:44 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb
Avg	**-.11779**	**14.904**	**-.81100**	**.38477**	**.15307**	**.00923**	**.03444**	**1.3029**
Stddev	.03971	2.340	.97413	.08360	.05635	.00519	.00165	.0818
%RSD	33.717	15.703	120.11	21.726	36.811	56.265	4.7881	6.2806
#1	-.14777	13.635	-1.3517	.33663	.21808	.00372	.03609	1.3970
#2	-.07275	13.472	-1.3948	.33639	.12269	.01404	.03279	1.2484
#3	-.13285	17.605	.31355	.48130	.11843	.00993	.03444	1.2633

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppb	ppb
Avg	**-.26138**	**.69370**	**3.8934**	**5.1755**	**.05670**	**.02610**	**.18031**	**.02635**
Stddev	.11484	.06206	.0792	.6500	.00357	.00641	.00708	.09910
%RSD	43.938	8.9467	2.0338	12.559	6.3000	24.554	3.9275	376.10
#1	-.14496	.71477	3.9794	5.8712	.05976	.03270	.17367	-.06694
#2	-.37458	.74249	3.8234	4.5838	.05278	.02570	.18776	.13039
#3	-.26459	.62385	3.8775	5.0716	.05757	.01990	.17951	.01561

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.05832**	**.00694**	**.51273**	**-1.2152**	**-.12557**	**-.47657**	**.1766**	**.03702**
Stddev	.00306	.07296	.69149	.4612	1.1074	.09282	.0070	.16815
%RSD	5.2443	1052.1	134.86	37.953	881.91	19.477	3.956	454.23
#1	.06181	-.04358	1.1941	-1.6386	.92613	-.54278	.1844	-.12676
#2	.05613	-.02620	.53248	-1.2835	-1.2813	-.37047	.1745	.02859
#3	.05700	.09059	-.18842	-.72371	-.02153	-.51646	.1709	.20922

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.3173**	**.01627**	**.66412**
Stddev	.6134	.11661	.06414
%RSD	46.561	716.58	9.6577
#1	-1.4836	.14488	.61616
#2	-.63798	-.08256	.73697
#3	-1.8304	-.01350	.63921

Sample Name: 1003096-02 Acquired: 3/22/2010 16:28:44 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1330.8	541430.	49750.
Stddev	7.5	1879.	669.
%RSD	.56236	.34695	1.3442
#1	1331.0	539570.	48983.
#2	1338.1	543330.	50208.
#3	1323.2	541380.	50060.

Sample Name: 1003096-03 Acquired: 3/22/2010 16:33:31 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb
Avg	**-.43596**	**74.212**	**19.521**	**138.47**	**34.331**	**.04432**	**474.18**	**3.1475**
Stddev	.22096	9.013	1.204	1.29	.103	.00642	3.44	.0781
%RSD	50.684	12.145	6.1661	.93217	.29903	14.489	.72552	2.4806
#1	-.56661	79.027	20.850	137.12	34.268	.03697	471.34	3.0721
#2	-.18084	79.795	18.504	139.69	34.276	.04713	473.20	3.2280
#3	-.56043	63.814	19.209	138.62	34.450	.04885	478.01	3.1423

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppb	ppb
Avg	**-.11838**	**3.3327**	**7.8693**	**12491.**	**8.6659**	**9.6737**	**141.50**	**10.726**
Stddev	.22346	.2133	.1422	39.	.0402	.0121	.96	.160
%RSD	188.76	6.3994	1.8076	.31094	.46439	.12463	.67563	1.4875
#1	.04231	3.1115	7.7424	12524.	8.6929	9.6812	140.68	10.602
#2	-.37356	3.3495	8.0231	12502.	8.6197	9.6598	142.55	10.670
#3	-.02389	3.5371	7.8426	12448.	8.6852	9.6800	141.28	10.906

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**67.926**	**1.3542**	**.08332**	**-1.1321**	**-.82583**	**-.78184**	**3085.**	**-.74534**
Stddev	.287	.1159	1.4126	.9684	2.0474	.98325	22.	.19170
%RSD	.42294	8.5602	1695.4	85.534	247.92	125.76	.6968	25.720
#1	68.102	1.4625	1.6168	-2.2493	-2.6240	.31651	3110.	-.62345
#2	67.594	1.3681	-1.1647	-.61456	-1.2558	-1.5800	3076.	-.64626
#3	68.082	1.2319	-.20219	-.53254	1.4024	-1.0820	3070.	-.96631

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.65414**	**1.5956**	**5.5376**
Stddev	1.9219	.2293	.1883
%RSD	293.80	14.371	3.3996
#1	.51346	1.7445	5.7528
#2	.39644	1.3315	5.4570
#3	-2.8723	1.7107	5.4031

Sample Name: 1003096-03 Acquired: 3/22/2010 16:33:31 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	933.87	449430.	45944.
Stddev	8.05	1860.	130.
%RSD	.86165	.41394	.28323
#1	936.64	451370.	46014.
#2	940.17	447660.	46024.
#3	924.81	449270.	45794.

Sample Name: 0C19009-MS1 Acquired: 3/22/2010 16:38:29 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb
Avg	**248.36**	**2021.0**	**566.48**	**1142.5**	**1889.2**	**43.312**	**481.97**	**280.09**
Stddev	1.11	6.5	3.70	5.9	11.5	.129	4.86	1.34
%RSD	.44543	.32249	.65250	.51904	.60676	.29851	1.0089	.47690
#1	249.61	2028.2	564.88	1149.3	1882.7	43.260	476.82	279.05
#2	247.99	2019.4	563.85	1138.2	1882.5	43.459	486.48	279.63
#3	247.49	2015.4	570.71	1140.1	1902.5	43.217	482.61	281.60

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppb	ppb
Avg	**451.82**	**173.50**	**267.07**	**13469.**	**13.812**	**13.924**	**601.40**	**962.16**
Stddev	2.41	.66	2.51	25.	.069	.039	1.50	5.01
%RSD	.53339	.38192	.93898	.18838	.49801	.27918	.24899	.52037
#1	449.90	174.23	269.96	13482.	13.857	13.880	603.04	957.55
#2	451.03	173.34	265.47	13484.	13.846	13.954	600.11	961.45
#3	454.52	172.93	265.79	13439.	13.732	13.938	601.05	967.49

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**73.718**	**462.48**	**490.00**	**518.20**	**548.60**	**937.85**	**4015.**	**886.94**
Stddev	.077	2.99	2.48	4.41	2.90	4.52	20.	5.97
%RSD	.10493	.64643	.50584	.85179	.52820	.48173	.5073	.67343
#1	73.790	460.22	491.20	513.36	546.13	934.06	3997.	892.01
#2	73.728	461.36	487.15	519.22	547.87	936.64	4012.	888.44
#3	73.636	465.87	491.66	522.01	551.79	942.85	4037.	880.36

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**446.94**	**441.94**	**463.37**
Stddev	2.59	2.03	2.63
%RSD	.57967	.45899	.56660
#1	444.16	443.94	461.61
#2	447.35	439.89	462.12
#3	449.30	442.01	466.39

Sample Name: 0C19009-MS1 Acquired: 3/22/2010 16:38:29 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	941.12	449980.	45887.
Stddev	3.30	3282.	81.
%RSD	.35078	.72929	.17571
#1	944.91	446220.	45972.
#2	939.52	451500.	45878.
#3	938.92	452230.	45812.

Sample Name: 0C19009-PS1 Acquired: 3/22/2010 16:43:14 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb
Avg	**297.51**	**2412.6**	**348.53**	**136.24**	**2278.4**	**51.669**	**469.21**	**167.57**
Stddev	.20	6.9	1.00	.43	10.4	.114	3.55	1.03
%RSD	.06844	.28508	.28570	.31421	.45500	.22015	.75583	.61427
#1	297.69	2418.9	349.53	136.30	2284.7	51.740	473.11	167.80
#2	297.56	2413.6	347.54	136.63	2266.5	51.538	468.34	166.45
#3	297.29	2405.2	348.52	135.78	2284.1	51.729	466.18	168.47

Elem	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppb	ppb
Avg	**546.65**	**207.15**	**318.85**	**13180.**	**14.682**	**14.578**	**688.00**	**11.700**
Stddev	2.84	.68	.52	62.	.034	.072	1.94	.108
%RSD	.51961	.32893	.16286	.47245	.23353	.49335	.28184	.92358
#1	546.66	207.90	318.26	13186.	14.687	14.658	688.31	11.792
#2	543.81	206.97	319.23	13115.	14.713	14.556	689.76	11.581
#3	549.49	206.57	319.07	13239.	14.645	14.519	685.92	11.728

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**73.029**	**556.26**	**291.00**	**318.49**	**331.22**	**-.58019**	**2996.**	**-.38314**
Stddev	.225	2.79	2.65	3.46	5.43	.21517	13.	.02005
%RSD	.30774	.50232	.90997	1.0871	1.6383	37.086	.4400	5.2331
#1	72.851	557.50	290.77	319.34	335.41	-.79127	2990.	-.36380
#2	73.282	553.06	288.47	314.69	325.09	-.58815	2988.	-.40383
#3	72.955	558.22	293.75	321.45	333.15	-.36115	3012.	-.38179

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**270.13**	**528.81**	**554.59**
Stddev	1.03	.36	.96
%RSD	.37998	.06878	.17328
#1	269.06	528.49	555.12
#2	270.24	529.20	553.48
#3	271.10	528.75	555.17

Sample Name: 0C19009-PS1 Acquired: 3/22/2010 16:43:14 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	936.89	456470.	46857.
Stddev	6.75	1534.	41.
%RSD	.71994	.33616	.08732
#1	937.01	455410.	46904.
#2	943.57	455760.	46838.
#3	930.08	458230.	46829.

Sample Name: 0C19009-DUP3 Acquired: 3/22/2010 16:56:09 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X 3096-01

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**-.45898**	F **-67.889**	**75.269**	**540.32**	**38.936**	**.03315**	F **685.23**
Stddev	.26750	19.687	1.199	2.07	.098	.01844	10.66
%RSD	58.283	28.999	1.5930	.38376	.25272	55.620	1.5561
#1	-.74472	-48.663	74.291	539.92	38.972	.03320	673.52
#2	-.41769	-88.008	76.606	542.56	39.011	.01469	694.38
#3	-.21451	-66.997	74.909	538.47	38.824	.05156	687.79

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	**4.2728**	**.66703**	**5.0261**	**8.1562**	**16867.**	**52.347**	**63.840**
Stddev	.2341	.17694	.1519	.0903	95.	.022	.284
%RSD	5.4787	26.526	3.0221	1.1072	.56435	.04223	.44469
#1	4.2667	.47916	5.1900	8.2599	16792.	52.345	63.745
#2	4.0418	.83050	4.8901	8.0952	16974.	52.370	64.159
#3	4.5098	.69143	4.9981	8.1134	16834.	52.326	63.615

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**207.12**	**38.806**	**465.63**	**4.4184**	**.41312**	**.27880**	**3.3581**
Stddev	.83	.113	5.24	.1502	.96650	.63066	2.0732
%RSD	.40195	.29199	1.1246	3.4004	233.95	226.20	61.738
#1	207.60	38.851	464.81	4.3203	-.67823	-.27616	5.7094
#2	207.61	38.677	460.86	4.3434	1.1609	.96463	2.5717
#3	206.16	38.890	471.24	4.5913	.75673	.14793	1.7931

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.0107**	**4192.**	F **-9.3173**	**-2.3217**	**3.0054**	**6.3352**
Stddev	.4107	10.	.4812	.5716	.3679	.1752
%RSD	40.633	.2376	5.1642	24.621	12.240	2.7653
#1	-.65092	4204.	-8.7846	-2.5916	3.0178	6.4248
#2	-.92310	4188.	-9.4468	-1.6651	3.3670	6.1333
#3	-1.4581	4186.	-9.7205	-2.7084	2.6315	6.4475

Sample Name: 0C19009-DUP3 Acquired: 3/22/2010 16:56:09 Type: Unk
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA /4X 3096-01

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	807.44	413770.	44354.
Stddev	2.13	1936.	188.
%RSD	.26353	.46794	.42486
#1	808.65	412650.	44560.
#2	804.99	412650.	44190.
#3	808.69	416000.	44313.

Sample Name: SEQ-CRL Acquired: 3/22/2010 17:18:06 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

70-130

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**2.1180**	**222.36**	**4.6446**	**36.373**	**95.063**	**4.8099**	**5.2588**
Stddev	.1394	2.60	1.5827	.102	.484	.0185	.0213
%RSD	6.5833	1.1700	34.076	.28061	.50908	.38447	.40413
#1	2.1916	221.98	3.2026	36.263	95.622	4.8271	5.2400
#2	1.9572	219.97	6.3379	36.390	94.767	4.8121	5.2546
#3	2.2053	225.14	4.3934	36.465	94.801	4.7903	5.2818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	**5.9135**	**11.366**	**5.0828**	F **12.912**	**103.78**	**5.0355**	**4.5157**
Stddev	.0216	.069	.1740	.058	2.34	.0127	.0094
%RSD	.36572	.60958	3.4241	.44578	2.2504	.25115	.20824
#1	5.9384	11.437	5.1820	12.897	101.17	5.0442	4.5228
#2	5.8994	11.362	5.1846	12.864	105.67	5.0210	4.5192
#3	5.9027	11.299	4.8819	12.976	104.49	5.0414	4.5050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				10.000			
Range				±2.0000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**16.106**	**14.022**	**4.8613**	**9.2355**	**3.5659**	**12.781**	**4.4793**
Stddev	.041	.068	.0116	.0780	.4030	.688	1.2633
%RSD	.25386	.48508	.23888	.84428	11.302	5.3798	28.203
#1	16.075	14.076	4.8712	9.3181	3.7076	12.092	3.0230
#2	16.091	13.946	4.8485	9.2252	3.8789	13.467	5.1346
#3	16.152	14.044	4.8643	9.1632	3.1112	12.785	5.2802
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 3/22/2010 17:18:06 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**29.245**	**.1484**	**16.097**	**6.9716**	**12.146**	**19.417**
Stddev	.487	.0050	.158	.6599	.208	.097
%RSD	1.6644	3.340	.97889	9.4660	1.7090	.50067
#1	29.639	.1527	16.224	6.5880	12.257	19.498
#2	28.701	.1430	15.920	7.7336	11.907	19.443
#3	29.396	.1495	16.146	6.5931	12.274	19.309
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1271.5**	**542130.**	**50068.**
Stddev	5.7	612.	147.
%RSD	.44447	.11291	.29337
#1	1274.7	542750.	50195.
#2	1274.8	542120.	50101.
#3	1265.0	541530.	49907.

Sample Name: SEQ-CCV Acquired: 3/22/2010 17:28:33 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**504.52**	**10045.**	**1015.9**	**1039.9**	**977.66**	**921.91**	**49.233**
Stddev	4.69	67.	24.8	7.7	23.08	12.36	.825
%RSD	.92892	.66951	2.4380	.74509	2.3606	1.3405	1.6751
#1	504.80	10038.	1005.6	1037.3	969.02	920.89	49.228
#2	509.06	9982.3	998.02	1048.6	960.15	910.09	48.411
#3	499.70	10116.	1044.2	1033.8	1003.8	934.74	50.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	**1059.9**	**948.58**	**972.34**	**1055.1**	**9376.6**	**9.9338**	F **44.762**
Stddev	25.1	22.11	9.97	9.9	161.1	.0376	.694
%RSD	2.3655	2.3305	1.0254	.93766	1.7180	.37854	1.5509
#1	1049.8	939.02	971.38	1054.1	9375.7	9.9049	44.648
#2	1041.4	932.86	982.76	1065.5	9216.0	9.9201	44.132
#3	1088.4	973.85	962.88	1045.8	9538.2	9.9763	45.506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							50.000
Range							±-5.0000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**1031.8**	**1007.4**	**48.218**	**977.82**	**1003.9**	**990.94**	**1040.2**
Stddev	9.8	26.4	.438	23.40	22.2	22.07	24.3
%RSD	.95288	2.6210	.90807	2.3933	2.2123	2.2275	2.3361
#1	1031.8	995.03	47.962	967.26	996.53	981.76	1026.7
#2	1041.6	989.40	47.969	961.55	986.32	974.94	1025.7
#3	1022.0	1037.7	48.724	1004.6	1028.9	1016.1	1068.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 3/22/2010 17:28:33 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 10C0682

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**995.26**	**999.2**	**981.11**	**991.65**	**966.60**	**1001.0**
Stddev	24.97	8.2	10.00	22.43	7.84	21.9
%RSD	2.5090	.8172	1.0194	2.2622	.81063	2.1915
#1	982.14	1000.	981.79	980.99	965.18	992.07
#2	979.59	990.5	970.78	976.53	975.04	984.99
#3	1024.1	1007.	990.75	1017.4	959.57	1026.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1112.4**	**508220.**	**50451.**
Stddev	25.6	2723.	538.
%RSD	2.3047	.53573	1.0667
#1	1121.6	508710.	50539.
#2	1132.2	505280.	50939.
#3	1083.5	510660.	49874.

Sample Name: SEQ-CCB Acquired: 3/22/2010 17:35:58 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.00649**	**6.1921**	**.09890**	**.94600**	**.12294**	**.06910**	**.00213**
Stddev	.13485	.7158	.10146	.22394	.12611	.01642	.00023
%RSD	2078.7	11.560	102.59	23.672	102.58	23.768	10.663
#1	-.13456	7.0187	-.01345	.69032	.26685	.08610	.00198
#2	.01988	5.7787	.12631	1.0404	.03172	.05332	.00202
#3	.13414	5.7790	.18383	1.1073	.07025	.06787	.00239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppm	ppm
Avg	F **1.2834**	**-.09937**	**.38437**	F **2.4727**	**.30841**	**.02981**	**.01914**
Stddev	.0752	.06620	.11485	.1536	1.8513	.00215	.00448
%RSD	5.8623	66.621	29.881	6.2107	600.27	7.2300	23.416
#1	1.2490	-.02412	.25709	2.2995	2.4244	.03106	.02065
#2	1.3697	-.14866	.41574	2.5923	-.48654	.02732	.01409
#3	1.2315	-.12532	.48028	2.5264	-1.0126	.03104	.02266
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	1.0000			1.5000			
Low Limit	-1.0000			-1.5000			

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.25790**	**.47296**	**.01755**	**.18890**	**.90270**	**-.79663**	**.55438**
Stddev	.08947	.02970	.00177	.19055	1.0096	.08652	1.2182
%RSD	34.693	6.2797	10.105	100.87	111.84	10.860	219.74
#1	.15462	.50224	.01929	.33989	-.16544	-.85526	.91949
#2	.31181	.47378	.01762	.25201	1.0323	-.83737	-.80460
#3	.30727	.44285	.01574	-.02520	1.8412	-.69726	1.5483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-CCB Acquired: 3/22/2010 17:35:58 Type: QC
Method: DuoEnviroMethodNEW(v1195) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.13566**	**.1412**	**.17284**	**-.48559**	**.10686**	**.19933**
Stddev	.45337	.0253	.11865	1.0291	.20968	.17967
%RSD	334.19	17.95	68.647	211.93	196.22	90.139
#1	-.06072	.1119	.29647	.64745	-.13163	.04315
#2	.27557	.1564	.05990	-.74186	.26225	.39569
#3	-.62184	.1552	.16214	-1.3623	.18995	.15915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1322.0**	**553720.**	**51205.**
Stddev	13.7	3563.	119.
%RSD	1.0363	.64346	.23308
#1	1333.1	551580.	51068.
#2	1326.2	557840.	51260.
#3	1306.7	551750.	51287.

PREPARATION BENCH SHEET

0C19009

Empirical Laboratories, LLC

rinted: 3/31/2010 9:31:52AM

Matrix: Water

Prepared using: METALS - MET_3005A_LOW

(No Surrogate)

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Code 39	Extraction Comments
0C19009-BLK1	QC	03/19/2010 10:47	100	25						
0C19009-BS1	QC	03/19/2010 10:47	100	25	10B0884		2000			
0C19009-DUP2	QC	03/19/2010 10:47	100	25		1003096-03				
0C19009-DUP3	QC	03/19/2010 10:47	100	25		1003096-01				
0C19009-MS1	QC	03/19/2010 10:47	100	25	10C0742	1003096-03	25			
0C19009-PS1	QC	03/19/2010 10:47	100	25	10C0742	1003096-03	25			
1003091-04	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Sb,As,Cu,Pb,Zn
1003091-05	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Sb,As,Cu,Pb,Zn
1003096-01	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						As ONLY!
1003096-02	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						As ONLY!
1003096-03	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						As ONLY!
1003108-02	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Sb,As,Cu,Pb,Zn
1003108-03	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Sb,As,Cu,Pb,Zn
1003119-01	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr
1003119-02	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr
1003119-03	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr
1003119-04	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr
1003119-05	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

PREPARATION BENCH SHEET

0C19009

Empirical Laboratories, LLC

rinted: 3/31/2010 9:31:52AM

Matrix: Water

Prepared using: METALS - MET_3005A_LOW

(No Surrogate)

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Code 39	Extraction Comments
1003119-06	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr
1003119-07	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr
1003119-08	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Select metals = Sb,As,Cu,Pb,Sn,Zr
1003152-02	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Sb,As,Cu,Pb,Zn
1003152-03	MET_ICP_LOW6010 B_FULL	03/19/2010 10:47	100	25						Sb,As,Cu,Pb,Zn

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Empirical Laboratories

EMPIRICAL LABORATORIES, LLC
LABORATORY SAMPLE CUSTODY FORM
WALK-IN REFRIGERATOR

Sample Log # (s)	Time/Date/Initials Removed	Time/Date/Initials Returned (Note if all Sample Used)	Notes/ Comments	Task Performed
03148-1	JLD 17:33 3/18/10			PAH
1003154 1003172	8:34 RD 3-19-10	9:55 RD 3-19-10		Metals
1003123-01 1003151-01, 02	VM 3-19-10 835	VM 3-19-10 1050	used all except 1003151-01+G (100mLs)	
1003173-02	↓	↓		↓
1003163-02, 03	VM 3-19-10 1050	3/19/10 13:15 Cat		Ophos
1003091-04,05 03096-01-03	KH 3/19/10 11:03	KH 3/19/10 12:00		metals
03108-02,03 03119-01-08	↓	↓		↓
03152-02,03	↓	↓		↓
1003126-01 1003160-01 1003173-01	11:05 KBG 3/19/10	15:50 KBG 3/19/10		TSS
1003168-01 1003172-01-23	PM 11:25 3/19/10	PM 12:45 3/19/10		VPH
03152-2-3	JLD 11:25 3/19/10			Exp
03148-1; 03168-6; 03172-1-13	JLD 12:15 3/19/10			MAEPH
3163-01-03 3152-02,03	3/19/10 13:15 Cat	3/19/10 13:45 Cat		Perchlorate
1003175-01-13	13:45 KBG 3/19/10	14:00 KBG 3/19/10		Anions
1003175-01-03,07,09	KH 3/19/10 13:00	KH 3/19/10 17:10	from log ↓	Fe 2+.
KMV ~~3144~~ 1003158-01, 02	KMV 3/21/10 11:30			Pest/PCB
1003133-03; 03143-01, 02	↓			Pest/PCB TCLP
3082-01,03,04, 05	VM 3-22-10 800	VM 3-22-10 1130		Alk
3094-01,04,05,11, 12,13	↓	↓		↓
3095-03,04,05 3103-01,03,05	↓	↓		↓

EVENT 2

Environmental Conservation Laboratories, Inc.
4810 Executive Park Court, Suite 111
Jacksonville FL, 32216-6069
Phone: 904.296.3007 FAX: 904.296.6210
www.encolabs.com

Monday, December 20, 2010

Tetra Tech NUS (BR006)

Attn: Greg Roof

8640 Philips Highway Suite 16

Jacksonville, FL 32256

RE: Laboratory Results for
Project Number: 112G00876, Project Name/Desc: Navsta Mayport CTO JM32 AOCC
ENCO Workorder: B005765

Dear Greg Roof,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, December 7, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Jacksonville. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Christina M. Tompkins

Chris Tompkins

Project Manager

Enclosure(s)

Section	Page
Cover Page	1
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Flags/Notes and Definitions	3
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FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported result is an estimated value.
U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
N	Non-target analyte.
Q	One or more quality control criteria failed.

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 0880 BOOE1K5

PAGE 1 OF 1

PROJECT NO: 112G02876	FACILITY: NAVSTA Mayport AOC-E	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT: ENCO / Chris Tomkins
SAMPLERS (SIGNATURE) Jeff Krone		FIELD OPERATIONS LEADER Dave Siefker	PHONE NUMBER 904 636 6125	ADDRESS 4810 Executive Park Ct
		CARRIER/WAYBILL NUMBER Hand delivered		CITY, STATE Jacksonville, Fl 32216

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P

PRESERVATIVE USED: HNO3

TYPE OF ANALYSIS: Arsenic 6010

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	Arsenic 6010	COMMENTS
12/6	1717	MPT-AOC-E-MW095-20101206				GW	G	1	X	Cool to 4°C

1. RELINQUISHED BY	DATE 12/7/10	TIME 1729	1. RECEIVED BY Kristen Rudolph	DATE 12/7/10	TIME 1729
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS WHITE @ 0.5°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

www.encolabs.com

Environmental Conservation Laboratories, Inc.
10775 Central Port Drive, Orlando, FL 32824
4810 Executive Park Court, Suite 211,Jacksonville, FL 32216
102-A Woodwinds Industrial Ct, Cary, NC 27511
www.encolabs.com

Client: Tetra Tech NUS (BR006)
Project: Navsta Mayport, CTO JM32 Site AOCC
SDG Number: BR006-081
Project Manager: Greg Roof
ENCO Project ID: B005765

Overview

The laboratory received one cooler for this project. The cooler was received properly sealed with the custody seals intact. The cooler was received on wet ice and within temperature compliance. All samples submitted were analyzed by Environmental Conservation Laboratories, Inc. in accordance with the methods referenced in the laboratory report. Environmental Conservation Laboratories in Jacksonville, Fl A2LA Certification number is 3000.02. There were no analyses performed outside method specified holding times. All analyses were reported using State of Florida requirements under Rule 62-160 Florida Administrative Code. A list of the data qualifier flags is summarized on page 3 of the report. There were not any particular difficulties encountered during sample handling and processing.

Laboratory Sample Identification	Client Sample Identification	Analyses
B005765-01	MPT-AOC-E-MW08S-20101206	EPA 6010C

Chris Tompkins
Project Manager

B005765

I Jamin Bergeron, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (904) 296-3007 if there are any questions or problems with the enclosed electronic deliverables.

Signature: _____ Title: QA Manager Date: 12/23/2010

Month Day, Year

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID:	MPT-AOC-E-MW08S-20101206	Lab ID: B005765-01	Sampled: 12/06/10 17:17	Received: 12/07/10 17:29

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	06/04/11	12/09/10 12:57	12/13/2010 10:14

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ANALYTICAL RESULTS

Description: MPT-AOC-E-MW08S-20101206
Matrix: Ground Water
Project: Navsta Mayport CTO JM32 AOCC

Lab Sample ID: B005765-01
Sampled: 12/06/10 17:17
Sampled By: Jeff Krone

Received: 12/07/10 17:29
Work Order: B005765

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Jacksonville certified analyte [DOD A2LA: 3000.02]

Analyte [CAS Number]	Results	Flag	Units	DF	DL	LOD	LOQ	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	<10.0	U	ug/L	1	6.70	10.0	20.0	EPA 6010C	12/13/10 10:14	ACV	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 0L09020 - EPA 3005A

Blank (0L09020-BLK1) Prepared: 12/09/2010 12:57 Analyzed: 12/13/2010 10:06

Analyte	Result	Flag	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	<10.0	U	20.0	ug/L							

LCS (0L09020-BS1) Prepared: 12/09/2010 12:57 Analyzed: 12/13/2010 10:09

Analyte	Result	Flag	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	509		20.0	ug/L	500		102	85-115			

Matrix Spike (0L09020-MS1) Prepared: 12/09/2010 12:57 Analyzed: 12/13/2010 10:10

Source: B005765-01

Analyte	Result	Flag	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	513		20.0	ug/L	500	6.70 U	103	80-120			

Matrix Spike Dup (0L09020-MSD1) Prepared: 12/09/2010 12:57 Analyzed: 12/13/2010 10:12

Source: B005765-01

Analyte	Result	Flag	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	521		20.0	ug/L	500	6.70 U	104	80-120	2	30	

ENCO Jacksonville

SDG: BR006-081

CLASS: 25_METALS - TOT

METHOD: EPA 6010C

ANALYSES DATA PACKAGE COVER PAGE

EPA 6010C

Laboratory:	ENCO Jacksonville	SDG:	BR006-081
Client:	Tetra Tech NUS (BR006)	Project:	Navsta Mayport CTO JM32 AOCC

Client Sample Id:	Lab Sample Id:
MPT-AOC-E-MW08S-20101206	B005765-01

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:		Name:	Christina Tompkins
Date:	12/20/10	Title:	Project Manager

INORGANIC ANALYSIS DATA SHEET

EPA 6010C

MPT-AOC-E-MW08S-20101206

Laboratory: ENCO Jacksonville
SDG: BR006-081
Client: Tetra Tech NUS (BR006)
Project: Navsta Mayport CTO JM32 AOCC
Matrix: Ground Water
Laboratory ID: B005765-01
File ID: 121310aRP1-015
Sampled: 12/06/10 17:17
Prepared: 12/09/10 12:57
Analyzed: 12/13/10 10:14
Solids: 0.00
Preparation: EPA 3005A
Initial/Final: 50 mL / 50 mL
Batch: 0L09020
Sequence: BA08436
Calibration: 1012020
Instrument: JMICP2

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	Q	DL	LOD	LOQ	Method
7440-38-2	Arsenic	<10.0	1	U	6.70	10.0	20.0	EPA 6010C

PREPARATION BATCH SUMMARY

EPA 6010C

Laboratory: ENCO Jacksonville SDG: BR006-081

Client: Tetra Tech NUS (BR006) Project: Navsta Mayport CTO JM32 AOCC

Batch: 0L09020 Batch Matrix: Water Preparation: EPA 3005A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	0L09020-BLK1	121310aRP1-011	12/09/10 12:57	
LCS	0L09020-BS1	121310aRP1-012	12/09/10 12:57	
MPT-AOC-E-MW08S-20101206	0L09020-MS1	121310aRP1-013	12/09/10 12:57	
MPT-AOC-E-MW08S-20101206	0L09020-MSD1	121310aRP1-014	12/09/10 12:57	
MPT-AOC-E-MW08S-20101206	B005765-01	121310aRP1-015	12/09/10 12:57	

METHOD BLANK DATA SHEET
EPA 6010C

Laboratory:	ENCO Jacksonville			SDG:	BR006-081
Client:	Tetra Tech NUS (BR006)			Project:	Navsta Mayport CTO JM32 AOCC
Matrix:	Water	Laboratory ID:	0L09020-BLK1	File ID:	121310aRP1-011
Prepared:	12/09/10 12:57	Preparation:	EPA 3005A	Initial/Final:	50 mL / 50 mL
Analyzed:	12/13/10 10:06	Instrument:	JMICP2		
Batch:	0L09020	Sequence:	BA08436	Calibration:	1012020

CAS NO.	COMPOUND	CONC. (ug/L)	Q
7440-38-2	Arsenic	<10.0	U

LCS / LCS DUPLICATE RECOVERY

EPA 6010C

Laboratory:	ENCO Jacksonville	SDG:	BR006-081
Client:	Tetra Tech NUS (BR006)	Project:	Navsta Mayport CTO JM32 AOCC
Matrix:	Water		
Batch:	0L09020	Laboratory ID:	0L09020-BS1
Preparation:	EPA 3005A	Initial/Final:	50 mL / 50 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Arsenic	500	509	102	85 - 115

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 6010C

MPT-AOC-E-MW08S-20101206

Laboratory:	ENCO Jacksonville	SDG:	BR006-081
Client:	Tetra Tech NUS (BR006)	Project:	Navsta Mayport CTO JM32 AOCC
Matrix:	Water		
Batch:	0L09020	Laboratory ID:	0L09020-MS1
Preparation:	EPA 3005A	Initial/Final:	50 mL / 50 mL

Source Sample Name: MPT-AOC-E-MW08S-20101206

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC. #	QC LIMITS REC.
Arsenic	500	ND	513	103	80 - 120

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Arsenic	500	521	104	2	30	80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 6010C

Laboratory:	ENCO Jacksonville	SDG:	BR006-081
Client:	Tetra Tech NUS (BR006)	Project:	Navsta Mayport CTO JM32 AOCC
Sequence:	BA08436	Instrument:	JMICP2
		Calibration:	1012020

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	BA08436-CAL1	121310aRP1-001	12/13/10 09:42
Cal Standard	BA08436-CAL2	121310aRP1-002	12/13/10 09:45
Secondary Cal Check	BA08436-SCV1	121310aRP1-003	12/13/10 09:47
Instrument RL Check	BA08436-CRL1	121310aRP1-005	12/13/10 09:52
Interference Check A	BA08436-IFA1	121310aRP1-006	12/13/10 09:55
Interference Check B	BA08436-IFB1	121310aRP1-007	12/13/10 09:56
Calibration Check	BA08436-CCV1	121310aRP1-009	12/13/10 10:01
Calibration Blank	BA08436-CCB1	121310aRP1-010	12/13/10 10:03
Blank	0L09020-BLK1	121310aRP1-011	12/13/10 10:06
LCS	0L09020-BS1	121310aRP1-012	12/13/10 10:09
MPT-AOC-E-MW08S-20101206	0L09020-MS1	121310aRP1-013	12/13/10 10:10
MPT-AOC-E-MW08S-20101206	0L09020-MSD1	121310aRP1-014	12/13/10 10:12
MPT-AOC-E-MW08S-20101206	B005765-01	121310aRP1-015	12/13/10 10:14
Calibration Check	BA08436-CCV2	121310aRP1-021	12/13/10 10:27
Calibration Blank	BA08436-CCB2	121310aRP1-022	12/13/10 10:28

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: ENCO Jacksonville
SDG: BR006-081
Client: Tetra Tech NUS (BR006)
Project: Navsta Mayport CTO JM32 AOCC
Instrument ID: JMICP2
Calibration: 1012020
Control Limt: +/- 10.00%
Sequence: BA08436

Lab Sample ID	Analyte	True	Found	%R	Units	Method
BA08436-CCV1	Arsenic	0.500	0.485	97	mg/L	EPA 6010C
BA08436-CCV2	Arsenic	0.500	0.489	98	mg/L	EPA 6010C

* Values outside of QC limits

BLANKS
EPA 6010C

Laboratory: ENCO Jacksonville
SDG: BR006-081
Client: Tetra Tech NUS (BR006)
Instrument ID: JMICP2
Project: Navsta Mayport CTO JM32 AOCC
Sequence: BA08436
Calibration: 1012020

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
BA08436-CCB1	Arsenic	-0.00109	0.0200	mg/L		EPA 6010C
0L09020-BLK1	Arsenic	-0.563	20.0	ug/L		EPA 6010C
BA08436-CCB2	Arsenic	-0.000365	0.0200	mg/L		EPA 6010C

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: ENCO Jacksonville

SDG: BR006-081

Client: Tetra Tech NUS (BR006)

Project: Navsta Mayport CTO JM32 AOCC

Instrument ID: JMICP2

Calibration: 1012020

Sequence: BA08436

Lab Sample ID	Analyte	True	Found	%R	Units
BA08436-IFA1	Arsenic		0.01		mg/L
BA08436-IFB1	Arsenic	1.00	1.00	100	mg/L

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 6010C

Laboratory: ENCO Jacksonville
SDG: BR006-081
Client: Tetra Tech NUS (BR006)
Project: Navsta Mayport CTO JM32 AOCC
Calibration: 1012020
Laboratory ID: BA08436-SCV1
Sequence: BA08436
Standard ID: B0I0182

ANALYTE	EXPECTED (mg/L)	FOUND (mg/L)	% DRIFT	QC LIMIT
Arsenic	0.500	0.491	-1.7	10.00

* Values outside of QC limits

CRDL STANDARD

EPA 6010C

Laboratory: ENCO Jacksonville

SDG: BR006-081

Client: Tetra Tech NUS (BR006)

Project: Navsta Mayport CTO JM32 AOCC

Instrument ID: JMICP2

Calibration: 1012020

Sequence: BA08436

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
BA08436-CRL1	Arsenic	0.0100	0.0107	107	mg/L	70 - 130

* Values outside of QC limits

Mean Data

ID: ICB1 **Seq. No.:** 1 **A/S Pos:** 1

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 09:43:51

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	188,623.3	[0.00]	2,739.92	%				1.45 %
Y 324.227A	1,166,078.6	[0.00]	3,649.82	%				0.31 %
Ag 328.068	173.3	[0.00]	106.28	mg/L				61.34 %
Al 308.215	10.6	[0.00]	5.31	mg/L				49.94 %
As 188.979	-19.9	[0.00]	2.10	mg/L				10.55 %
Ba 233.527	-44.4	[0.00]	7.06	mg/L				15.90 %
Be 313.107	-10,133.5	[0.00]	17.89	mg/L				0.18 %
B 208.959	140.9	[0.00]	5.41	mg/L				3.84 %
Ca 317.933	1,697.1	[0.00]	28.90	mg/L				1.70 %
Cd 226.502	-171.7	[0.00]	6.07	mg/L				3.53 %
Co 228.616	1.5	[0.00]	3.82	mg/L				259.56 %
Cr 267.716	87.6	[0.00]	18.28	mg/L				20.88 %
Cu 324.754	5,064.8	[0.00]	96.78	mg/L				1.91 %
Fe 273.955	71.5	[0.00]	6.10	mg/L				8.53 %
K 766.491R	97.7	[0.00]	40.27	mg/L				41.23 %
Li 670.781R	56.9	[0.00]	46.74	mg/L				82.21 %
Mg 279.079R	-14.4	[0.00]	7.32	mg/L				50.95 %
Mn 257.610	91.6	[0.00]	12.45	mg/L				13.58 %
Mo 202.030	87.4	[0.00]	3.34	mg/L				3.82 %
Na 589.592R	-166.5	[0.00]	63.43	mg/L				38.09 %
Ni 231.604	-30.7	[0.00]	14.36	mg/L				46.74 %
Pb 220.353	-133.1	[0.00]	3.90	mg/L				2.93 %
Sb 206.833	71.6	[0.00]	7.13	mg/L				9.96 %
Se 196.026	25.9	[0.00]	3.45	mg/L				13.30 %
Sn 189.933	27.9	[0.00]	4.49	mg/L				16.13 %
Sr 421.539R	271.5	[0.00]	0.70	mg/L				0.26 %
Ti 337.280	-223.1	[0.00]	99.37	mg/L				44.55 %
Tl 190.800	-32.5	[0.00]	7.07	mg/L				21.74 %
V 292.402	-521.1	[0.00]	107.19	mg/L				20.57 %
Zn 206.191	-92.7	[0.00]	4.64	mg/L				5.01 %
Cd 228.802	135.9	[0.00]	6.91	mg/L				5.08 %

Mean Data

ID: CAL1 **Seq. No.:** 2 **A/S Pos:** 2

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 09:45:54

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	188,330.4	99.84	2,840.42	%				1.51 %
Y 324.227A	1,152,094.5	98.80	6,685.66	%				0.58 %
Ag 328.068	190,944.4	[1.00]	367.18	mg/L				0.19 %
Al 308.215	8,951.7	[10]	22.69	mg/L				0.25 %
As 188.979	1,999.8	[1.00]	4.65	mg/L				0.23 %
Ba 233.527	120,832.4	[1.00]	277.07	mg/L				0.23 %
Be 313.107	349,318.5	[0.1]	428.57	mg/L				0.12 %
B 208.959	48,493.7	[5.00]	94.56	mg/L				0.20 %
Ca 317.933	162,068.4	[10.00]	297.26	mg/L				0.18 %
Cd 226.502	9,973.0	[0.1]	36.31	mg/L				0.36 %
Co 228.616	33,480.3	[1.00]	121.02	mg/L				0.36 %
Cr 267.716	88,778.9	[1.00]	88.95	mg/L				0.10 %
Cu 324.754	282,116.0	[1.00]	766.42	mg/L				0.27 %
Fe 273.955	108,480.9	[5.0]	103.42	mg/L				0.10 %
K 766.491R	113,139.5	[50.00]	2,043.44	mg/L				1.81 %
Li 670.781R	81,757.3	[1.00]	1,585.25	mg/L				1.94 %
Mg 279.079R	12,214.3	[10.00]	27.02	mg/L				0.22 %
Mn 257.610	588,251.2	[1.00]	644.49	mg/L				0.11 %

Mo 202.030	22,669.9	[1.00]	70.24	mg/L	0.31 %
Na 589.592R	532,371.7	[50.0]	10,389.21	mg/L	1.95 %
Ni 231.604	44,545.1	[1.00]	58.63	mg/L	0.13 %
Pb 220.353	8,792.0	[1.00]	32.74	mg/L	0.37 %
Sb 206.833	3,289.8	[1.00]	7.15	mg/L	0.22 %
Se 196.026	1,990.8	[1.00]	16.71	mg/L	0.84 %
Sn 189.933	8,477.3	[1.00]	25.06	mg/L	0.30 %
Sr 421.539R	774,944.7	[1.00]	15,610.99	mg/L	2.01 %
Ti 337.280	269,745.9	[0.50]	491.63	mg/L	0.18 %
Tl 190.800	3,302.9	[1.00]	25.16	mg/L	0.76 %
V 292.402	207,776.2	[1.00]	301.19	mg/L	0.14 %
Zn 206.191	44,799.6	[1.00]	102.12	mg/L	0.23 %
Cd 228.802	4,733.6	[0.1]	17.74	mg/L	0.37 %

Mean Data

ID: QCS-1 **Seq. No.:** 3 **A/S Pos:** 5

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 09:48:10

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	191,508.1	101.5	1.52	%				1.50 %
Y 324.227A	1,159,323.6	99.42	1.281	%				1.29 %
Ag 328.068	94,954.5	0.5021	0.00096	mg/L	0.5021			0.19 %
2010/12/13 12:22:51 QC value within limits for Ag 328.068 Recovery = 100.41%								
Al 308.215	4,431.8	4.94	0.098	mg/L	4.94			1.98 %
2010/12/13 12:22:51 QC value within limits for Al 308.215 Recovery = 98.84%								
As 188.979	982.3	0.4913	0.00603	mg/L	0.4913			1.23 %
2010/12/13 12:22:51 QC value within limits for As 188.979 Recovery = 98.26%								
Ba 233.527	60,594.9	0.5020	0.00049	mg/L	0.5020			0.10 %
2010/12/13 12:22:51 QC value within limits for Ba 233.527 Recovery = 100.40%								
Be 313.107	175,653.5	0.0508	0.00007	mg/L	0.0508			0.13 %
2010/12/13 12:22:51 QC value within limits for Be 313.107 Recovery = 101.67%								
B 208.959	24,213.5	2.466	0.0165	mg/L	2.466			0.67 %
2010/12/13 12:22:51 QC value within limits for B 208.959 Recovery = 98.66%								
Ca 317.933	79,995.1	4.936	0.0799	mg/L	4.936			1.62 %
2010/12/13 12:22:51 QC value within limits for Ca 317.933 Recovery = 98.72%								
Cd 226.502	4,966.4	0.0493	0.00075	mg/L	0.0493			1.52 %
2010/12/13 12:22:51 QC value within limits for Cd 226.502 Recovery = 98.52%								
Co 228.616	16,818.4	0.5025	0.00715	mg/L	0.5025			1.42 %
2010/12/13 12:22:51 QC value within limits for Co 228.616 Recovery = 100.50%								
Cr 267.716	44,921.2	0.5057	0.00092	mg/L	0.5057			0.18 %
2010/12/13 12:22:51 QC value within limits for Cr 267.716 Recovery = 101.13%								
Cu 324.754	141,200.0	0.5007	0.00152	mg/L	0.5007			0.30 %
2010/12/13 12:22:51 QC value within limits for Cu 324.754 Recovery = 100.15%								
Fe 273.955	54,961.9	2.536	0.0016	mg/L	2.536			0.06 %
2010/12/13 12:22:51 QC value within limits for Fe 273.955 Recovery = 101.43%								
K 766.491R	55,521.3	24.5	0.02	mg/L	24.5			0.08 %
2010/12/13 12:22:51 QC value within limits for K 766.491R Recovery = 98.15%								
Li 670.781R	40,678.9	0.498	0.0006	mg/L	0.498			0.13 %
2010/12/13 12:22:51 QC value within limits for Li 670.781R Recovery = 99.51%								
Mg 279.079R	6,053.7	4.96	0.068	mg/L	4.96			1.37 %
2010/12/13 12:22:51 QC value within limits for Mg 279.079R Recovery = 99.12%								
Mn 257.610	296,221.8	0.5034	0.00080	mg/L	0.5034			0.16 %
2010/12/13 12:22:51 QC value within limits for Mn 257.610 Recovery = 100.68%								
Mo 202.030	11,380.2	0.5021	0.00719	mg/L	0.5021			1.43 %
2010/12/13 12:22:51 QC value within limits for Mo 202.030 Recovery = 100.43%								
Na 589.592R	264,160.5	24.8	0.02	mg/L	24.8			0.08 %
2010/12/13 12:22:51 QC value within limits for Na 589.592R Recovery = 99.24%								
Ni 231.604	22,310.8	0.501	0.0020	mg/L	0.501			0.40 %
2010/12/13 12:22:51 QC value within limits for Ni 231.604 Recovery = 100.17%								
Pb 220.353	4,470.2	0.5102	0.00703	mg/L	0.5102			1.38 %
2010/12/13 12:22:51 QC value within limits for Pb 220.353 Recovery = 102.04%								

Sb 206.833	1,623.4	0.4918	0.00538	mg/L	0.4918	1.09 %
2010/12/13 12:22:51 QC value within limits for Sb 206.833 Recovery = 98.36%						
Se 196.026	985.8	0.4963	0.00666	mg/L	0.4963	1.34 %
2010/12/13 12:22:51 QC value within limits for Se 196.026 Recovery = 99.26%						
Sn 189.933	4,061.3	0.4794	0.00581	mg/L	0.4794	1.21 %
2010/12/13 12:22:51 QC value within limits for Sn 189.933 Recovery = 95.88%						
Sr 421.539R	382,274.4	0.4933	0.00105	mg/L	0.4933	0.21 %
2010/12/13 12:22:51 QC value within limits for Sr 421.539R Recovery = 98.66%						
Ti 337.280	136,942.1	0.2538	0.00029	mg/L	0.2538	0.11 %
2010/12/13 12:22:51 QC value within limits for Ti 337.280 Recovery = 101.51%						
Tl 190.800	1,689.3	0.5106	0.00538	mg/L	0.5106	1.05 %
2010/12/13 12:22:51 QC value within limits for Tl 190.800 Recovery = 102.13%						
V 292.402	102,985.4	0.5032	0.00042	mg/L	0.5032	0.08 %
2010/12/13 12:22:51 QC value within limits for V 292.402 Recovery = 100.65%						
Zn 206.191	22,190.9	0.4965	0.00062	mg/L	0.4965	0.13 %
2010/12/13 12:22:51 QC value within limits for Zn 206.191 Recovery = 99.30%						
Cd 228.802	2,350.9	0.0497	0.00072	mg/L	0.0497	1.46 %
2010/12/13 12:22:51 QC value within limits for Cd 228.802 Recovery = 99.33%						

Mean Data

ID: QCS-LOW **Seq. No.:** 5 **A/S Pos:** 6

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 09:53:11

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	189,967.7	100.7	1.16	%				1.15 %
Y 324.227A	1,170,361.8	100.4	1.18	%				1.18 %
Ag 328.068	1,794.7	0.0095	0.00036	mg/L	0.0095			3.84 %
2010/12/13 12:22:52 QC value within limits for Ag 328.068 Recovery = 94.92%								
Al 308.215	177.7	0.198	0.0159	mg/L	0.198			8.00 %
2010/12/13 12:22:52 QC value within limits for Al 308.215 Recovery = 99.16%								
As 188.979	21.4	0.0107	0.00178	mg/L	0.0107			16.58 %
2010/12/13 12:22:52 QC value within limits for As 188.979 Recovery = 107.12%								
Ba 233.527	1,226.1	0.0102	0.00026	mg/L	0.0102			2.53 %
2010/12/13 12:22:52 QC value within limits for Ba 233.527 Recovery = 101.58%								
Be 313.107	3,775.0	0.0011	0.00004	mg/L	0.0011			3.80 %
2010/12/13 12:22:52 QC value within limits for Be 313.107 Recovery = 109.15%								
B 208.959	571.7	0.0583	0.00122	mg/L	0.0583			2.09 %
2010/12/13 12:22:52 QC value within limits for B 208.959 Recovery = 116.68%								
Ca 317.933	7,909.6	0.4880	0.00457	mg/L	0.4880			0.94 %
2010/12/13 12:22:52 QC value within limits for Ca 317.933 Recovery = 97.61%								
Cd 226.502	101.2	0.0010	0.00009	mg/L	0.0010			9.29 %
2010/12/13 12:22:52 QC value within limits for Cd 226.502 Recovery = 100.37%								
Co 228.616	339.8	0.0102	0.00047	mg/L	0.0102			4.66 %
2010/12/13 12:22:52 QC value within limits for Co 228.616 Recovery = 101.52%								
Cr 267.716	899.4	0.0101	0.00055	mg/L	0.0101			5.47 %
2010/12/13 12:22:52 QC value within limits for Cr 267.716 Recovery = 101.24%								
Cu 324.754	2,924.0	0.0104	0.00037	mg/L	0.0104			3.52 %
2010/12/13 12:22:52 QC value within limits for Cu 324.754 Recovery = 103.81%								
Fe 273.955	1,066.9	0.0492	0.00179	mg/L	0.0492			3.65 %
2010/12/13 12:22:52 QC value within limits for Fe 273.955 Recovery = 98.44%								
K 766.491R	1,137.3	0.503	0.0361	mg/L	0.503			7.18 %
2010/12/13 12:22:52 QC value within limits for K 766.491R Recovery = 100.52%								
Li 670.781R	885.4	0.011	0.0009	mg/L	0.011			8.43 %
2010/12/13 12:22:52 QC value within limits for Li 670.781R Recovery = 108.30%								
Mg 279.079R	610.3	0.500	0.0045	mg/L	0.500			0.91 %
2010/12/13 12:22:52 QC value within limits for Mg 279.079R Recovery = 99.93%								
Mn 257.610	5,970.2	0.0101	0.00004	mg/L	0.0101			0.41 %
2010/12/13 12:22:52 QC value within limits for Mn 257.610 Recovery = 101.34%								
Mo 202.030	230.4	0.0102	0.00038	mg/L	0.0102			3.77 %
2010/12/13 12:22:52 QC value within limits for Mo 202.030 Recovery = 101.67%								
Na 589.592R	5,709.5	0.536	0.0088	mg/L	0.536			1.63 %

2010/12/13 12:22:52 QC value within limits for Na 589.592R Recovery = 107.25%

Ni 231.604	451.9	0.010	0.0004	mg/L	0.010	3.96 %

2010/12/13 12:22:52 QC value within limits for Ni 231.604 Recovery = 101.45%

Pb 220.353	93.4	0.0107	0.00059	mg/L	0.0107	5.56 %

2010/12/13 12:22:52 QC value within limits for Pb 220.353 Recovery = 106.72%

Sb 206.833	66.3	0.0207	0.00291	mg/L	0.0207	14.09 %

2010/12/13 12:22:52 QC value within limits for Sb 206.833 Recovery = 103.45%

Se 196.026	19.8	0.0100	0.00315	mg/L	0.0100	31.56 %

2010/12/13 12:22:52 QC value within limits for Se 196.026 Recovery = 99.82%

Sn 189.933	338.0	0.0399	0.00136	mg/L	0.0399	3.41 %

2010/12/13 12:22:52 QC value within limits for Sn 189.933 Recovery = 99.69%

Sr 421.539R	38,759.0	0.0500	0.00025	mg/L	0.0500	0.49 %

2010/12/13 12:22:52 QC value within limits for Sr 421.539R Recovery = 100.03%

Ti 337.280	2,705.3	0.0050	0.00013	mg/L	0.0050	2.53 %

2010/12/13 12:22:52 QC value within limits for Ti 337.280 Recovery = 100.14%

Tl 190.800	33.2	0.0100	0.00094	mg/L	0.0100	9.41 %

2010/12/13 12:22:52 QC value within limits for Tl 190.800 Recovery = 100.34%

V 292.402	2,005.9	0.0098	0.00008	mg/L	0.0098	0.85 %

2010/12/13 12:22:52 QC value within limits for V 292.402 Recovery = 98.07%

Zn 206.191	430.6	0.0096	0.00036	mg/L	0.0096	3.75 %

2010/12/13 12:22:52 QC value within limits for Zn 206.191 Recovery = 96.34%

Cd 228.802	60.5	0.0013	0.00010	mg/L	0.0013	8.10 %

2010/12/13 12:22:52 QC value within limits for Cd 228.802 Recovery = 127.77%

Mean Data

ID: ICS_A **Seq. No.:** 6 **A/S Pos:** 7

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 09:55:35

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	180,439.1	95.66	1.595	%				1.67 %
Y 324.227A	1,051,457.1	90.17	0.915	%				1.01 %
Ag 328.068	-1,453.4	0.0007	0.00016	mg/L	0.0007			22.46 %

2010/12/13 12:22:53 QC value within limits for Ag 328.068 Recovery = Not calculated

Al 308.215	447,724.8	500	1.0	mg/L	500	0.20 %

2010/12/13 12:22:53 QC value within limits for Al 308.215 Recovery = 100.03%

As 188.979	-18.9	0.0062	0.00379	mg/L	0.0062	60.61 %

2010/12/13 12:22:53 QC value within limits for As 188.979 Recovery = Not calculated

Ba 233.527	940.1	0.0078	0.00010	mg/L	0.0078	1.27 %

2010/12/13 12:22:53 QC value within limits for Ba 233.527 Recovery = Not calculated

Be 313.107	-454.8	-0.0001	0.00005	mg/L	-0.0001	38.49 %

2010/12/13 12:22:53 QC value within limits for Be 313.107 Recovery = Not calculated

B 208.959	98.4	0.0097	0.00126	mg/L	0.0097	12.94 %

2010/12/13 12:22:53 QC value within limits for B 208.959 Recovery = Not calculated

Ca 317.933	7,459,038.9	460.2	6.29	mg/L	460.2	1.37 %

2010/12/13 12:22:53 QC value within limits for Ca 317.933 Recovery = 92.05%

Cd 226.502	2,446.7	0.0002	0.00038	mg/L	0.0002	157.99 %

2010/12/13 12:22:53 QC value within limits for Cd 226.502 Recovery = Not calculated

Co 228.616	156.4	0.0047	0.00014	mg/L	0.0047	2.91 %

2010/12/13 12:22:53 QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716	-361.8	-0.0041	0.00011	mg/L	-0.0041	2.61 %

2010/12/13 12:22:53 QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.754	-3,455.7	0.0027	0.00007	mg/L	0.0027	2.71 %

2010/12/13 12:22:53 QC value within limits for Cu 324.754 Recovery = Not calculated

Fe 273.955	3,828,292.2	176.5	0.45	mg/L	176.5	0.25 %

2010/12/13 12:22:53 QC value within limits for Fe 273.955 Recovery = 88.23%

K 766.491R	-75.6	-0.033	0.0435	mg/L	-0.033	130.28 %

2010/12/13 12:22:53 QC value within limits for K 766.491R Recovery = Not calculated

Li 670.781R	74.2	0.001	0.0007	mg/L	0.001	71.97 %

2010/12/13 12:22:53 QC value within limits for Li 670.781R Recovery = Not calculated

Mg 279.079R	581,365.3	476	1.2	mg/L	476	0.25 %

2010/12/13 12:22:53 QC value within limits for Mg 279.079R Recovery = 95.19%

Mn 257.610	3,080.3	-0.0095	0.00011	mg/L	-0.0095	1.18 %
2010/12/13 12:22:53 QC value within limits for Mn 257.610 Recovery = Not calculated						
2010/12/13 12:22:53 Saturated outside survey window (code 6)						
Mo 202.030	165.7	0.0073	0.00017	mg/L	0.0073	2.28 %
2010/12/13 12:22:53 QC value within limits for Mo 202.030 Recovery = Not calculated						
Na 589.592R	302.1	0.028	0.0086	mg/L	0.028	30.37 %
2010/12/13 12:22:53 QC value within limits for Na 589.592R Recovery = Not calculated						
Ni 231.604	52.3	0.001	0.0003	mg/L	0.001	24.39 %
2010/12/13 12:22:53 QC value within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353	-667.1	0.0072	0.00179	mg/L	0.0072	24.76 %
2010/12/13 12:22:53 QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.833	118.2	-0.0001	0.00387	mg/L	-0.0001	5,732.33 %
2010/12/13 12:22:53 QC value within limits for Sb 206.833 Recovery = Not calculated						
Se 196.026	-254.2	-0.0027	0.00693	mg/L	-0.0027	261.32 %
2010/12/13 12:22:53 QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.933	37.8	0.0045	0.00049	mg/L	0.0045	10.98 %
2010/12/13 12:22:53 QC value within limits for Sn 189.933 Recovery = Not calculated						
Sr 421.539R	1,554.1	0.0020	0.00008	mg/L	0.0020	3.91 %
2010/12/13 12:22:53 QC value within limits for Sr 421.539R Recovery = Not calculated						
Ti 337.280	1,539.8	-0.0049	0.00005	mg/L	-0.0049	0.99 %
2010/12/13 12:22:53 QC value within limits for Ti 337.280 Recovery = Not calculated						
Tl 190.800	-95.9	-0.0164	0.00178	mg/L	-0.0164	10.82 %
2010/12/13 12:22:53 QC value within limits for Tl 190.800 Recovery = Not calculated						
V 292.402	-4,711.4	0.0017	0.00042	mg/L	0.0017	23.97 %
2010/12/13 12:22:53 QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.191	57.5	0.0013	0.00012	mg/L	0.0013	9.10 %
2010/12/13 12:22:53 QC value within limits for Zn 206.191 Recovery = Not calculated						
Cd 228.802	14.7	0.0003	0.00006	mg/L	0.0003	20.16 %
2010/12/13 12:22:53 QC value within limits for Cd 228.802 Recovery = Not calculated						

Mean Data

ID: ICS_B **Seq. No.:** 7 **A/S Pos:** 4

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 09:57:17

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	181,142.3	96.03	0.377	%				0.39 %
Y 324.227A	1,055,506.0	90.52	1.276	%				1.41 %
Ag 328.068	200,969.6	1.070	0.0098	mg/L	1.070			0.92 %
2010/12/13 12:22:53 QC value within limits for Ag 328.068 Recovery = 106.99%								
Al 308.215	450,267.2	503	0.5	mg/L	503			0.09 %
2010/12/13 12:22:53 QC value within limits for Al 308.215 Recovery = 100.60%								
As 188.979	1,965.3	0.9984	0.01566	mg/L	0.9984			1.57 %
2010/12/13 12:22:53 QC value within limits for As 188.979 Recovery = 99.84%								
Ba 233.527	116,098.8	0.9619	0.00822	mg/L	0.9619			0.85 %
2010/12/13 12:22:53 QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107	3,470,175.4	0.9955	0.00156	mg/L	0.9955			0.16 %
2010/12/13 12:22:53 QC value within limits for Be 313.107 Recovery = 99.55%								
B 208.959	9,846.7	0.9578	0.01383	mg/L	0.9578			1.44 %
2010/12/13 12:22:53 QC value within limits for B 208.959 Recovery = 95.78%								
Ca 317.933	7,384,593.9	455.6	4.78	mg/L	455.6			1.05 %
2010/12/13 12:22:53 QC value within limits for Ca 317.933 Recovery = 91.13%								
Cd 226.502	91,403.8	0.8917	0.01100	mg/L	0.8917			1.23 %
2010/12/13 12:22:53 QC value within limits for Cd 226.502 Recovery = 89.17%								
Co 228.616	29,963.0	0.8941	0.01293	mg/L	0.8941			1.45 %
2010/12/13 12:22:53 QC value within limits for Co 228.616 Recovery = 89.41%								
Cr 267.716	83,709.3	0.9423	0.00897	mg/L	0.9423			0.95 %
2010/12/13 12:22:53 QC value within limits for Cr 267.716 Recovery = 94.23%								
Cu 324.754	288,021.0	1.036	0.0106	mg/L	1.036			1.02 %
2010/12/13 12:22:53 QC value within limits for Cu 324.754 Recovery = 103.64%								
Fe 273.955	3,838,295.0	176.9	0.23	mg/L	176.9			0.13 %
2010/12/13 12:22:53 QC value within limits for Fe 273.955 Recovery = 88.46%								

K 766.491R	22,883.9	10.1	0.07	mg/L	10.1	0.71 %
2010/12/13 12:22:53 QC value within limits for K 766.491R Recovery = 101.13%						
Li 670.781R	83,352.7	1.02	0.001	mg/L	1.02	0.14 %
2010/12/13 12:22:53 QC value within limits for Li 670.781R Recovery = 101.95%						
Mg 279.079R	587,293.6	481	1.1	mg/L	481	0.23 %
2010/12/13 12:22:53 QC value within limits for Mg 279.079R Recovery = 96.17%						
Mn 257.610	555,011.4	0.9287	0.00815	mg/L	0.9287	0.88 %
2010/12/13 12:22:53 QC value within limits for Mn 257.610 Recovery = 92.87%						
Mo 202.030	21,737.5	0.9591	0.01315	mg/L	0.9591	1.37 %
2010/12/13 12:22:53 QC value within limits for Mo 202.030 Recovery = 95.91%						
Na 589.592R	547,683.9	51.4	0.51	mg/L	51.4	0.98 %
2010/12/13 12:22:53 QC value within limits for Na 589.592R Recovery = 102.88%						
Ni 231.604	38,959.6	0.875	0.0062	mg/L	0.875	0.70 %
2010/12/13 12:22:53 QC value within limits for Ni 231.604 Recovery = 87.46%						
Pb 220.353	7,431.4	0.9306	0.01025	mg/L	0.9306	1.10 %
2010/12/13 12:22:53 QC value within limits for Pb 220.353 Recovery = 93.06%						
Sb 206.833	3,311.8	0.9687	0.01889	mg/L	0.9687	1.95 %
2010/12/13 12:22:53 QC value within limits for Sb 206.833 Recovery = 96.87%						
Se 196.026	1,729.1	0.9929	0.00777	mg/L	0.9929	0.78 %
2010/12/13 12:22:53 QC value within limits for Se 196.026 Recovery = 99.29%						
Sn 189.933	8,205.9	0.9693	0.01395	mg/L	0.9693	1.44 %
2010/12/13 12:22:53 QC value within limits for Sn 189.933 Recovery = 96.93%						
Sr 421.539R	754,996.2	0.9743	0.01009	mg/L	0.9743	1.04 %
2010/12/13 12:22:53 QC value within limits for Sr 421.539R Recovery = 97.43%						
Ti 337.280	531,879.0	0.9781	0.00845	mg/L	0.9781	0.86 %
2010/12/13 12:22:53 QC value within limits for Ti 337.280 Recovery = 97.81%						
Tl 190.800	2,799.4	0.8579	0.01043	mg/L	0.8579	1.22 %
2010/12/13 12:22:53 QC value within limits for Tl 190.800 Recovery = 85.79%						
V 292.402	194,703.8	0.9747	0.00920	mg/L	0.9747	0.94 %
2010/12/13 12:22:53 QC value within limits for V 292.402 Recovery = 97.47%						
Zn 206.191	39,092.6	0.8748	0.00802	mg/L	0.8748	0.92 %
2010/12/13 12:22:53 QC value within limits for Zn 206.191 Recovery = 87.48%						
Cd 228.802	39,263.5	0.8295	0.01127	mg/L	0.8295	1.36 %
2010/12/13 12:22:53 QC value within limits for Cd 228.802 Recovery = 82.95%						

Mean Data

ID: CVS **Seq. No.:** 9 **A/S Pos:** 3

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:01:42

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	190,866.1	101.2	1.98	%				1.96 %
Y 324.227A	1,160,040.6	99.48	0.649	%				0.65 %
Ag 328.068	92,757.6	0.4905	0.00131	mg/L	0.4905			0.27 %
2010/12/13 12:22:55 QC value within limits for Ag 328.068 Recovery = 98.10%								
Al 308.215	4,326.4	4.82	0.047	mg/L	4.82			0.97 %
2010/12/13 12:22:55 QC value within limits for Al 308.215 Recovery = 96.49%								
As 188.979	969.8	0.4850	0.00200	mg/L	0.4850			0.41 %
2010/12/13 12:22:55 QC value within limits for As 188.979 Recovery = 97.01%								
Ba 233.527	59,008.8	0.4889	0.00106	mg/L	0.4889			0.22 %
2010/12/13 12:22:55 QC value within limits for Ba 233.527 Recovery = 97.78%								
Be 313.107	170,371.5	0.0493	0.00010	mg/L	0.0493			0.20 %
2010/12/13 12:22:55 QC value within limits for Be 313.107 Recovery = 98.60%								
B 208.959	23,410.3	2.384	0.0100	mg/L	2.384			0.42 %
2010/12/13 12:22:55 QC value within limits for B 208.959 Recovery = 95.37%								
Ca 317.933	77,862.0	4.804	0.0756	mg/L	4.804			1.57 %
2010/12/13 12:22:55 QC value within limits for Ca 317.933 Recovery = 96.09%								
Cd 226.502	4,903.3	0.0486	0.00032	mg/L	0.0486			0.65 %
2010/12/13 12:22:55 QC value within limits for Cd 226.502 Recovery = 97.28%								
Co 228.616	16,532.0	0.4940	0.00401	mg/L	0.4940			0.81 %
2010/12/13 12:22:55 QC value within limits for Co 228.616 Recovery = 98.79%								
Cr 267.716	43,374.1	0.4882	0.00209	mg/L	0.4882			0.43 %

2010/12/13 12:22:55 QC value within limits for Cr 267.716 Recovery = 97.65%

Cu 324.754	138,210.0	0.4901	0.00121	mg/L	0.4901	0.25 %

2010/12/13 12:22:55 QC value within limits for Cu 324.754 Recovery = 98.03%

Fe 273.955	53,768.5	2.481	0.0021	mg/L	2.481	0.09 %

2010/12/13 12:22:55 QC value within limits for Fe 273.955 Recovery = 99.22%

K 766.491R	54,270.7	24.0	0.11	mg/L	24.0	0.46 %

2010/12/13 12:22:55 QC value within limits for K 766.491R Recovery = 95.94%

Li 670.781R	39,672.1	0.485	0.0019	mg/L	0.485	0.39 %

2010/12/13 12:22:55 QC value within limits for Li 670.781R Recovery = 97.05%

Mg 279.079R	5,912.1	4.84	0.051	mg/L	4.84	1.06 %

2010/12/13 12:22:55 QC value within limits for Mg 279.079R Recovery = 96.81%

Mn 257.610	288,375.7	0.4901	0.00106	mg/L	0.4901	0.22 %

2010/12/13 12:22:55 QC value within limits for Mn 257.610 Recovery = 98.02%

Mo 202.030	11,135.6	0.4913	0.00358	mg/L	0.4913	0.73 %

2010/12/13 12:22:55 QC value within limits for Mo 202.030 Recovery = 98.27%

Na 589.592R	257,163.8	24.2	0.03	mg/L	24.2	0.14 %

2010/12/13 12:22:55 QC value within limits for Na 589.592R Recovery = 96.61%

Ni 231.604	21,802.9	0.489	0.0036	mg/L	0.489	0.75 %

2010/12/13 12:22:55 QC value within limits for Ni 231.604 Recovery = 97.89%

Pb 220.353	4,327.0	0.4939	0.00418	mg/L	0.4939	0.85 %

2010/12/13 12:22:55 QC value within limits for Pb 220.353 Recovery = 98.77%

Sb 206.833	1,601.0	0.4856	0.00356	mg/L	0.4856	0.73 %

2010/12/13 12:22:55 QC value within limits for Sb 206.833 Recovery = 97.13%

Se 196.026	966.7	0.4867	0.00398	mg/L	0.4867	0.82 %

2010/12/13 12:22:55 QC value within limits for Se 196.026 Recovery = 97.34%

Sn 189.933	4,153.4	0.4903	0.00333	mg/L	0.4903	0.68 %

2010/12/13 12:22:55 QC value within limits for Sn 189.933 Recovery = 98.05%

Sr 421.539R	372,974.9	0.4813	0.00037	mg/L	0.4813	0.08 %

2010/12/13 12:22:55 QC value within limits for Sr 421.539R Recovery = 96.26%

Ti 337.280	131,762.2	0.2442	0.00070	mg/L	0.2442	0.29 %

2010/12/13 12:22:55 QC value within limits for Ti 337.280 Recovery = 97.67%

Tl 190.800	1,638.2	0.4951	0.00387	mg/L	0.4951	0.78 %

2010/12/13 12:22:55 QC value within limits for Tl 190.800 Recovery = 99.02%

V 292.402	101,358.1	0.4952	0.00161	mg/L	0.4952	0.33 %

2010/12/13 12:22:55 QC value within limits for V 292.402 Recovery = 99.04%

Zn 206.191	21,747.0	0.4865	0.00119	mg/L	0.4865	0.24 %

2010/12/13 12:22:55 QC value within limits for Zn 206.191 Recovery = 97.31%

Cd 228.802	2,312.3	0.0488	0.00052	mg/L	0.0488	1.06 %

2010/12/13 12:22:55 QC value within limits for Cd 228.802 Recovery = 97.70%

Mean Data

ID: BLK **Seq. No.:** 10 **A/S Pos:** 1

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:04:11

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	187,744.4	99.53	1.039	%				1.04 %
Y 324.227A	1,174,396.7	100.7	0.78	%				0.77 %
Ag 328.068	-57.4	-0.0003	0.00057	mg/L	-0.0003			188.24 %

2010/12/13 12:22:55 QC value within limits for Ag 328.068 Recovery = Not calculated

Al 308.215	20.7	0.023	0.0101	mg/L	0.023	43.83 %

2010/12/13 12:22:55 QC value within limits for Al 308.215 Recovery = Not calculated

As 188.979	-2.2	-0.0011	0.00076	mg/L	-0.0011	69.90 %

2010/12/13 12:22:55 QC value within limits for As 188.979 Recovery = Not calculated

Ba 233.527	4.7	0.0000	0.00004	mg/L	0.0000	99.03 %

2010/12/13 12:22:55 QC value within limits for Ba 233.527 Recovery = Not calculated

Be 313.107	390.8	0.0001	0.00007	mg/L	0.0001	62.86 %

2010/12/13 12:22:55 QC value within limits for Be 313.107 Recovery = Not calculated

B 208.959	117.2	0.0120	0.00145	mg/L	0.0120	12.08 %

2010/12/13 12:22:55 QC value within limits for B 208.959 Recovery = Not calculated

Ca 317.933	289.0	0.0178	0.00470	mg/L	0.0178	26.35 %

2010/12/13 12:22:55 QC value within limits for Ca 317.933 Recovery = Not calculated

Cd 226.502	14.5	0.0001	0.00004	mg/L	0.0001	25.01 %
2010/12/13 12:22:55	QC value within limits for Cd 226.502 Recovery = Not calculated					
Co 228.616	5.0	0.0002	0.00028	mg/L	0.0002	188.66 %
2010/12/13 12:22:55	QC value within limits for Co 228.616 Recovery = Not calculated					
Cr 267.716	23.9	0.0003	0.00006	mg/L	0.0003	21.82 %
2010/12/13 12:22:55	QC value within limits for Cr 267.716 Recovery = Not calculated					
Cu 324.754	400.9	0.0014	0.00025	mg/L	0.0014	17.49 %
2010/12/13 12:22:55	QC value within limits for Cu 324.754 Recovery = Not calculated					
Fe 273.955	295.5	0.0136	0.00140	mg/L	0.0136	10.31 %
2010/12/13 12:22:55	QC value within limits for Fe 273.955 Recovery = Not calculated					
K 766.491R	3.2	0.001	0.0543	mg/L	0.001	3,808.91 %
2010/12/13 12:22:55	QC value within limits for K 766.491R Recovery = Not calculated					
Li 670.781R	-84.3	-0.001	0.0013	mg/L	-0.001	121.84 %
2010/12/13 12:22:55	QC value within limits for Li 670.781R Recovery = Not calculated					
Mg 279.079R	39.0	0.032	0.0039	mg/L	0.032	12.08 %
2010/12/13 12:22:55	QC value within limits for Mg 279.079R Recovery = Not calculated					
Mn 257.610	78.1	0.0001	0.00001	mg/L	0.0001	6.17 %
2010/12/13 12:22:55	QC value within limits for Mn 257.610 Recovery = Not calculated					
Mo 202.030	31.8	0.0014	0.00027	mg/L	0.0014	19.04 %
2010/12/13 12:22:55	QC value within limits for Mo 202.030 Recovery = Not calculated					
Na 589.592R	356.8	0.034	0.0047	mg/L	0.034	13.93 %
2010/12/13 12:22:55	QC value within limits for Na 589.592R Recovery = Not calculated					
Ni 231.604	5.6	0.000	0.0003	mg/L	0.000	224.41 %
2010/12/13 12:22:55	QC value within limits for Ni 231.604 Recovery = Not calculated					
Pb 220.353	0.3	0.0000	0.00048	mg/L	0.0000	1,299.17 %
2010/12/13 12:22:55	QC value within limits for Pb 220.353 Recovery = Not calculated					
Sb 206.833	12.3	0.0037	0.00238	mg/L	0.0037	63.67 %
2010/12/13 12:22:55	QC value within limits for Sb 206.833 Recovery = Not calculated					
Se 196.026	3.0	0.0015	0.00551	mg/L	0.0015	360.80 %
2010/12/13 12:22:55	QC value within limits for Se 196.026 Recovery = Not calculated					
Sn 189.933	3.2	0.0004	0.00074	mg/L	0.0004	198.70 %
2010/12/13 12:22:55	QC value within limits for Sn 189.933 Recovery = Not calculated					
Sr 421.539R	101.1	0.0001	0.00014	mg/L	0.0001	108.81 %
2010/12/13 12:22:55	QC value within limits for Sr 421.539R Recovery = Not calculated					
Ti 337.280	153.0	0.0003	0.00013	mg/L	0.0003	45.92 %
2010/12/13 12:22:55	QC value within limits for Ti 337.280 Recovery = Not calculated					
Tl 190.800	4.4	0.0013	0.00080	mg/L	0.0013	59.94 %
2010/12/13 12:22:55	QC value within limits for Tl 190.800 Recovery = Not calculated					
V 292.402	6.4	0.0000	0.00025	mg/L	0.0000	510.89 %
2010/12/13 12:22:55	QC value within limits for V 292.402 Recovery = Not calculated					
Zn 206.191	14.9	0.0003	0.00012	mg/L	0.0003	36.21 %
2010/12/13 12:22:55	QC value within limits for Zn 206.191 Recovery = Not calculated					
Cd 228.802	6.3	0.0001	0.00010	mg/L	0.0001	76.03 %
2010/12/13 12:22:55	QC value within limits for Cd 228.802 Recovery = Not calculated					

Mean Data

ID: 0L09020-blk1 **Seq. No.:** 11 **A/S Pos:** 401

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:07:34

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	194,419.9	103.1	1.27	%			%	1.23 %
Y 324.227A	1,200,637.7	103.0	0.77	%			%	0.75 %
Ag 328.068	-79.3	-0.0004	0.00047	mg/L	-0.0004	0.00047	mg/L	113.52 %
Al 308.215	9.0	0.010	0.0028	mg/L	0.010	0.0028	mg/L	28.23 %
As 188.979	-1.1	-0.0006	0.00210	mg/L	-0.0006	0.00210	mg/L	372.38 %
Ba 233.527	7.8	0.0001	0.00007	mg/L	0.0001	0.00007	mg/L	101.30 %
Be 313.107	418.5	0.0001	0.00004	mg/L	0.0001	0.00004	mg/L	29.91 %
B 208.959	66.3	0.0068	0.00013	mg/L	0.0068	0.00013	mg/L	1.95 %
Ca 317.933	102.4	0.0063	0.00086	mg/L	0.0063	0.00086	mg/L	13.68 %
Cd 226.502	20.6	0.0002	0.00013	mg/L	0.0002	0.00013	mg/L	62.62 %
Co 228.616	0.1	0.0000	0.00011	mg/L	0.0000	0.00011	mg/L	3,381.52 %

Cr 267.716	16.4	0.0002	0.00009	mg/L	0.0002	0.00009	mg/L	47.84 %
Cu 324.754	188.8	0.0007	0.00019	mg/L	0.0007	0.00019	mg/L	28.36 %
Fe 273.955	320.1	0.0148	0.00109	mg/L	0.0148	0.00109	mg/L	7.38 %
K 766.491R	-8.7	-0.004	0.0215	mg/L	-0.004	0.0215	mg/L	560.69 %
Li 670.781R	-63.6	-0.001	0.0012	mg/L	-0.001	0.0012	mg/L	156.35 %
Mg 279.079R	27.9	0.023	0.0042	mg/L	0.023	0.0042	mg/L	18.45 %
Mn 257.610	40.0	0.0001	0.00001	mg/L	0.0001	0.00001	mg/L	14.16 %
Mo 202.030	-1.8	-0.0001	0.00003	mg/L	-0.0001	0.00003	mg/L	31.71 %
Na 589.592R	96.5	0.009	0.0042	mg/L	0.009	0.0042	mg/L	45.90 %
Ni 231.604	7.4	0.000	0.0001	mg/L	0.000	0.0001	mg/L	70.45 %
Pb 220.353	12.5	0.0014	0.00084	mg/L	0.0014	0.00084	mg/L	59.22 %
Sb 206.833	-1.9	-0.0006	0.00089	mg/L	-0.0006	0.00089	mg/L	149.41 %
Se 196.026	-2.1	-0.0010	0.00170	mg/L	-0.0010	0.00170	mg/L	162.64 %
Sn 189.933	-1.5	-0.0002	0.00076	mg/L	-0.0002	0.00076	mg/L	423.31 %
Sr 421.539R	27.4	0.0000	0.00007	mg/L	0.0000	0.00007	mg/L	208.85 %
Ti 337.280	24.1	0.0000	0.00014	mg/L	0.0000	0.00014	mg/L	323.44 %
Tl 190.800	3.2	0.0010	0.00113	mg/L	0.0010	0.00113	mg/L	117.13 %
V 292.402	-11.9	-0.0001	0.00040	mg/L	-0.0001	0.00040	mg/L	723.96 %
Zn 206.191	7.1	0.0002	0.00009	mg/L	0.0002	0.00009	mg/L	54.60 %
Cd 228.802	-1.1	0.0000	0.00013	mg/L	0.0000	0.00013	mg/L	560.31 %

Mean Data

ID: 0L09020-bs1 **Seq. No.:** 12 **A/S Pos:** 402

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:09:35

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	192,673.3	102.1	1.08	%			%	1.06 %
Y 324.227A	1,185,790.5	101.7	0.58	%			%	0.57 %
Ag 328.068	18,796.6	0.1033	0.00032	mg/L	0.1033	0.00032	mg/L	0.31 %
Al 308.215	4,529.8	5.05	0.044	mg/L	5.05	0.044	mg/L	0.86 %
As 188.979	1,017.0	0.5086	0.00101	mg/L	0.5086	0.00101	mg/L	0.20 %
Ba 233.527	61,266.1	0.5076	0.00109	mg/L	0.5076	0.00109	mg/L	0.21 %
Be 313.107	179,899.2	0.0521	0.00022	mg/L	0.0521	0.00022	mg/L	0.42 %
B 208.959	24,878.9	2.535	0.0191	mg/L	2.535	0.0191	mg/L	0.76 %
Ca 317.933	81,111.8	5.005	0.0573	mg/L	5.005	0.0573	mg/L	1.14 %
Cd 226.502	5,134.5	0.0509	0.00035	mg/L	0.0509	0.00035	mg/L	0.69 %
Co 228.616	16,946.3	0.5063	0.00268	mg/L	0.5063	0.00268	mg/L	0.53 %
Cr 267.716	45,183.4	0.5086	0.00216	mg/L	0.5086	0.00216	mg/L	0.42 %
Cu 324.754	143,259.7	0.5080	0.00206	mg/L	0.5080	0.00206	mg/L	0.40 %
Fe 273.955	55,380.4	2.555	0.0053	mg/L	2.555	0.0053	mg/L	0.21 %
K 766.491R	56,004.4	24.8	0.06	mg/L	24.8	0.06	mg/L	0.24 %
Li 670.781R	40,833.1	0.499	0.0007	mg/L	0.499	0.0007	mg/L	0.13 %
Mg 279.079R	6,161.0	5.04	0.056	mg/L	5.04	0.056	mg/L	1.11 %
Mn 257.610	298,877.4	0.5079	0.00134	mg/L	0.5079	0.00134	mg/L	0.26 %
Mo 202.030	11,433.0	0.5045	0.00350	mg/L	0.5045	0.00350	mg/L	0.69 %
Na 589.592R	266,332.9	25.0	0.02	mg/L	25.0	0.02	mg/L	0.08 %
Ni 231.604	22,620.8	0.508	0.0015	mg/L	0.508	0.0015	mg/L	0.30 %
Pb 220.353	4,542.5	0.5184	0.00270	mg/L	0.5184	0.00270	mg/L	0.52 %
Sb 206.833	1,635.5	0.4960	0.00350	mg/L	0.4960	0.00350	mg/L	0.71 %
Se 196.026	1,035.3	0.5212	0.00352	mg/L	0.5212	0.00352	mg/L	0.68 %
Sn 189.933	4,332.1	0.5114	0.00242	mg/L	0.5114	0.00242	mg/L	0.47 %
Sr 421.539R	384,426.1	0.4961	0.00050	mg/L	0.4961	0.00050	mg/L	0.10 %
Ti 337.280	137,577.2	0.2549	0.00083	mg/L	0.2549	0.00083	mg/L	0.33 %
Tl 190.800	1,720.5	0.5201	0.00506	mg/L	0.5201	0.00506	mg/L	0.97 %
V 292.402	103,700.5	0.5067	0.00184	mg/L	0.5067	0.00184	mg/L	0.36 %
Zn 206.191	22,820.5	0.5105	0.00101	mg/L	0.5105	0.00101	mg/L	0.20 %
Cd 228.802	2,420.1	0.0511	0.00021	mg/L	0.0511	0.00021	mg/L	0.41 %

Mean Data

ID: 0L09020-ms1 **Seq. No.:** 13 **A/S Pos:** 403

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:11:15

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	194,370.4	103.0	0.19	%			%	0.19 %
Y 324.227A	1,165,032.6	99.91	0.624	%			%	0.62 %
Ag 328.068	18,825.3	0.1035	0.00031	mg/L	0.1035	0.00031	mg/L	0.30 %
Al 308.215	4,469.5	4.98	0.058	mg/L	4.98	0.058	mg/L	1.16 %
As 188.979	1,024.2	0.5125	0.00428	mg/L	0.5125	0.00428	mg/L	0.83 %
Ba 233.527	61,444.9	0.5091	0.00052	mg/L	0.5091	0.00052	mg/L	0.10 %
Be 313.107	176,739.8	0.0511	0.00010	mg/L	0.0511	0.00010	mg/L	0.20 %
B 208.959	25,613.9	2.611	0.0079	mg/L	2.611	0.0079	mg/L	0.30 %
Ca 317.933	2,487,389.8	153.5	0.05	mg/L	153.5	0.05	mg/L	0.03 %
Cd 226.502	4,918.6	0.0484	0.00036	mg/L	0.0484	0.00036	mg/L	0.75 %
Co 228.616	16,110.8	0.4814	0.00443	mg/L	0.4814	0.00443	mg/L	0.92 %
Cr 267.716	43,974.4	0.4949	0.00004	mg/L	0.4949	0.00004	mg/L	0.01 %
Cu 324.754	140,143.5	0.4972	0.00101	mg/L	0.4972	0.00101	mg/L	0.20 %
Fe 273.955	111,273.3	5.131	0.0092	mg/L	5.131	0.0092	mg/L	0.18 %
K 766.491R	65,269.9	28.8	0.03	mg/L	28.8	0.03	mg/L	0.09 %
Li 670.781R	40,543.3	0.496	0.0008	mg/L	0.496	0.0008	mg/L	0.17 %
Mg 279.079R	14,581.8	11.9	0.22	mg/L	11.9	0.22	mg/L	1.85 %
Mn 257.610	326,763.4	0.5551	0.00077	mg/L	0.5551	0.00077	mg/L	0.14 %
Mo 202.030	11,421.2	0.5040	0.00459	mg/L	0.5040	0.00459	mg/L	0.91 %
Na 589.592R	379,777.1	35.7	0.05	mg/L	35.7	0.05	mg/L	0.14 %
Ni 231.604	21,840.7	0.490	0.0014	mg/L	0.490	0.0014	mg/L	0.28 %
Pb 220.353	4,347.6	0.4962	0.00379	mg/L	0.4962	0.00379	mg/L	0.76 %
Sb 206.833	1,618.9	0.4908	0.00520	mg/L	0.4908	0.00520	mg/L	1.06 %
Se 196.026	1,011.8	0.5109	0.00379	mg/L	0.5109	0.00379	mg/L	0.74 %
Sn 189.933	4,212.9	0.4973	0.00542	mg/L	0.4973	0.00542	mg/L	1.09 %
Sr 421.539R	990,548.8	1.278	0.0011	mg/L	1.278	0.0011	mg/L	0.09 %
Ti 337.280	135,745.7	0.2514	0.00026	mg/L	0.2514	0.00026	mg/L	0.10 %
Tl 190.800	1,604.3	0.4895	0.00474	mg/L	0.4895	0.00474	mg/L	0.97 %
V 292.402	102,193.6	0.4998	0.00083	mg/L	0.4998	0.00083	mg/L	0.17 %
Zn 206.191	21,727.3	0.4861	0.00271	mg/L	0.4861	0.00271	mg/L	0.56 %
Cd 228.802	2,394.4	0.0506	0.00059	mg/L	0.0506	0.00059	mg/L	1.17 %

Mean Data

ID: 0L09020-msd1 **Seq. No.:** 14 **A/S Pos:** 404

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:12:56

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	194,418.1	103.1	0.51	%			%	0.50 %
Y 324.227A	1,156,390.1	99.17	0.360	%			%	0.36 %
Ag 328.068	19,004.3	0.1044	0.00014	mg/L	0.1044	0.00014	mg/L	0.14 %
Al 308.215	4,526.1	5.05	0.080	mg/L	5.05	0.080	mg/L	1.58 %
As 188.979	1,041.1	0.5210	0.00354	mg/L	0.5210	0.00354	mg/L	0.68 %
Ba 233.527	61,843.4	0.5124	0.00086	mg/L	0.5124	0.00086	mg/L	0.17 %
Be 313.107	177,534.4	0.0514	0.00008	mg/L	0.0514	0.00008	mg/L	0.16 %
B 208.959	25,926.9	2.643	0.0179	mg/L	2.643	0.0179	mg/L	0.68 %
Ca 317.933	2,548,144.6	157.2	0.11	mg/L	157.2	0.11	mg/L	0.07 %
Cd 226.502	5,007.6	0.0493	0.00014	mg/L	0.0493	0.00014	mg/L	0.28 %
Co 228.616	16,376.4	0.4893	0.00186	mg/L	0.4893	0.00186	mg/L	0.38 %
Cr 267.716	44,171.4	0.4972	0.00044	mg/L	0.4972	0.00044	mg/L	0.09 %
Cu 324.754	141,698.8	0.5027	0.00271	mg/L	0.5027	0.00271	mg/L	0.54 %
Fe 273.955	112,940.5	5.208	0.0177	mg/L	5.208	0.0177	mg/L	0.34 %
K 766.491R	66,007.6	29.2	0.05	mg/L	29.2	0.05	mg/L	0.17 %
Li 670.781R	40,996.1	0.501	0.0020	mg/L	0.501	0.0020	mg/L	0.40 %
Mg 279.079R	15,029.2	12.3	0.18	mg/L	12.3	0.18	mg/L	1.44 %
Mn 257.610	329,385.6	0.5596	0.00083	mg/L	0.5596	0.00083	mg/L	0.15 %

Mo 202.030	11,609.2	0.5123	0.00187	mg/L	0.5123	0.00187	mg/L	0.37 %
Na 589.592R	384,958.2	36.2	0.04	mg/L	36.2	0.04	mg/L	0.11 %
Ni 231.604	21,958.6	0.493	0.0008	mg/L	0.493	0.0008	mg/L	0.17 %
Pb 220.353	4,415.4	0.5040	0.00124	mg/L	0.5040	0.00124	mg/L	0.25 %
Sb 206.833	1,649.8	0.5003	0.00292	mg/L	0.5003	0.00292	mg/L	0.58 %
Se 196.026	1,034.4	0.5223	0.00164	mg/L	0.5223	0.00164	mg/L	0.31 %
Sn 189.933	4,281.1	0.5053	0.00373	mg/L	0.5053	0.00373	mg/L	0.74 %
Sr 421.539R	1,009,476.1	1.303	0.0019	mg/L	1.303	0.0019	mg/L	0.14 %
Ti 337.280	136,277.2	0.2524	0.00050	mg/L	0.2524	0.00050	mg/L	0.20 %
Tl 190.800	1,620.5	0.4945	0.00232	mg/L	0.4945	0.00232	mg/L	0.47 %
V 292.402	102,620.2	0.5019	0.00109	mg/L	0.5019	0.00109	mg/L	0.22 %
Zn 206.191	21,879.5	0.4895	0.00208	mg/L	0.4895	0.00208	mg/L	0.42 %
Cd 228.802	2,435.9	0.0515	0.00013	mg/L	0.0515	0.00013	mg/L	0.25 %

Mean Data

ID: b005765-01 **Seq. No.:** 15 **A/S Pos:** 405

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:15:15

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	194,868.3	103.3	0.79	%			%	0.77 %
Y 324.227A	1,161,503.5	99.61	1.606	%			%	1.61 %
Ag 328.068	161.1	0.0010	0.00068	mg/L	0.0010	0.00068	mg/L	69.94 %
Al 308.215	28.0	0.031	0.0067	mg/L	0.031	0.0067	mg/L	21.76 %
As 188.979	6.1	0.0033	0.00239	mg/L	0.0033	0.00239	mg/L	72.27 %
Ba 233.527	2,083.2	0.0172	0.00026	mg/L	0.0172	0.00026	mg/L	1.51 %
Be 313.107	-116.7	0.0000	0.00005	mg/L	0.0000	0.00005	mg/L	155.91 %
B 208.959	1,158.4	0.1185	0.00206	mg/L	0.1185	0.00206	mg/L	1.74 %
Ca 317.933	2,448,402.3	151.1	0.36	mg/L	151.1	0.36	mg/L	0.24 %
Cd 226.502	38.5	0.0000	0.00013	mg/L	0.0000	0.00013	mg/L	1,461.89 %
Co 228.616	6.2	0.0002	0.00015	mg/L	0.0002	0.00015	mg/L	70.44 %
Cr 267.716	90.0	0.0009	0.00010	mg/L	0.0009	0.00010	mg/L	10.51 %
Cu 324.754	443.1	0.0018	0.00019	mg/L	0.0018	0.00019	mg/L	10.76 %
Fe 273.955	59,132.1	2.725	0.0049	mg/L	2.725	0.0049	mg/L	0.18 %
K 766.491R	9,703.7	4.29	0.068	mg/L	4.29	0.068	mg/L	1.58 %
Li 670.781R	265.9	0.003	0.0004	mg/L	0.003	0.0004	mg/L	11.21 %
Mg 279.079R	8,896.2	7.28	0.040	mg/L	7.28	0.040	mg/L	0.55 %
Mn 257.610	37,274.0	0.0631	0.00007	mg/L	0.0631	0.00007	mg/L	0.10 %
Mo 202.030	369.4	0.0163	0.00042	mg/L	0.0163	0.00042	mg/L	2.56 %
Na 589.592R	118,449.6	11.1	0.02	mg/L	11.1	0.02	mg/L	0.15 %
Ni 231.604	160.0	0.004	0.0000	mg/L	0.004	0.0000	mg/L	0.40 %
Pb 220.353	-7.4	-0.0008	0.00071	mg/L	-0.0008	0.00071	mg/L	88.39 %
Sb 206.833	2.8	0.0008	0.00122	mg/L	0.0008	0.00122	mg/L	155.58 %
Se 196.026	-1.6	0.0008	0.00357	mg/L	0.0008	0.00357	mg/L	435.85 %
Sn 189.933	91.9	0.0108	0.00053	mg/L	0.0108	0.00053	mg/L	4.93 %
Sr 421.539R	619,659.9	0.7996	0.00201	mg/L	0.7996	0.00201	mg/L	0.25 %
Ti 337.280	390.2	0.0006	0.00026	mg/L	0.0006	0.00026	mg/L	42.85 %
Tl 190.800	-31.4	-0.0049	0.00181	mg/L	-0.0049	0.00181	mg/L	37.14 %
V 292.402	149.7	0.0013	0.00005	mg/L	0.0013	0.00005	mg/L	4.25 %
Zn 206.191	138.0	0.0031	0.00025	mg/L	0.0031	0.00025	mg/L	8.02 %
Cd 228.802	14.1	0.0003	0.00006	mg/L	0.0003	0.00006	mg/L	18.64 %

Mean Data

ID: CVS **Seq. No.:** 21 **A/S Pos:** 3

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:27:38

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD
Y 371.029R	193,194.2	102.4	1.47	%				1.44 %
Y 324.227A	1,163,084.5	99.74	0.925	%				0.93 %
Ag 328.068	93,448.9	0.4942	0.00241	mg/L	0.4942			0.49 %
2010/12/13 12:23:02 QC value within limits for Ag 328.068 Recovery = 98.83%								
Al 308.215	4,367.4	4.87	0.042	mg/L	4.87			0.86 %

2010/12/13 12:23:02 QC value within limits for Al 308.215 Recovery = 97.41%

As 188.979	977.0	0.4886	0.00380	mg/L	0.4886	0.78 %

2010/12/13 12:23:02 QC value within limits for As 188.979 Recovery = 97.72%

Ba 233.527	59,590.4	0.4937	0.00235	mg/L	0.4937	0.48 %

2010/12/13 12:23:02 QC value within limits for Ba 233.527 Recovery = 98.74%

Be 313.107	171,788.4	0.0497	0.00030	mg/L	0.0497	0.61 %

2010/12/13 12:23:02 QC value within limits for Be 313.107 Recovery = 99.42%

B 208.959	23,771.4	2.421	0.0173	mg/L	2.421	0.72 %

2010/12/13 12:23:02 QC value within limits for B 208.959 Recovery = 96.85%

Ca 317.933	79,004.8	4.875	0.0520	mg/L	4.875	1.07 %

2010/12/13 12:23:02 QC value within limits for Ca 317.933 Recovery = 97.50%

Cd 226.502	4,930.7	0.0489	0.00057	mg/L	0.0489	1.17 %

2010/12/13 12:23:02 QC value within limits for Cd 226.502 Recovery = 97.80%

Co 228.616	16,647.3	0.4974	0.00483	mg/L	0.4974	0.97 %

2010/12/13 12:23:02 QC value within limits for Co 228.616 Recovery = 99.48%

Cr 267.716	43,871.4	0.4938	0.00326	mg/L	0.4938	0.66 %

2010/12/13 12:23:02 QC value within limits for Cr 267.716 Recovery = 98.77%

Cu 324.754	139,381.0	0.4943	0.00300	mg/L	0.4943	0.61 %

2010/12/13 12:23:02 QC value within limits for Cu 324.754 Recovery = 98.86%

Fe 273.955	55,448.8	2.558	0.0403	mg/L	2.558	1.58 %

2010/12/13 12:23:02 QC value within limits for Fe 273.955 Recovery = 102.32%

K 766.491R	54,296.5	24.0	0.05	mg/L	24.0	0.22 %

2010/12/13 12:23:02 QC value within limits for K 766.491R Recovery = 95.98%

Li 670.781R	39,627.7	0.485	0.0018	mg/L	0.485	0.38 %

2010/12/13 12:23:02 QC value within limits for Li 670.781R Recovery = 96.94%

Mg 279.079R	5,959.2	4.88	0.028	mg/L	4.88	0.57 %

2010/12/13 12:23:02 QC value within limits for Mg 279.079R Recovery = 97.58%

Mn 257.610	290,811.3	0.4942	0.00277	mg/L	0.4942	0.56 %

2010/12/13 12:23:02 QC value within limits for Mn 257.610 Recovery = 98.84%

Mo 202.030	11,216.2	0.4949	0.00521	mg/L	0.4949	1.05 %

2010/12/13 12:23:02 QC value within limits for Mo 202.030 Recovery = 98.98%

Na 589.592R	258,274.7	24.3	0.10	mg/L	24.3	0.41 %

2010/12/13 12:23:02 QC value within limits for Na 589.592R Recovery = 97.03%

Ni 231.604	22,118.2	0.497	0.0035	mg/L	0.497	0.71 %

2010/12/13 12:23:02 QC value within limits for Ni 231.604 Recovery = 99.31%

Pb 220.353	4,349.7	0.4965	0.00541	mg/L	0.4965	1.09 %

2010/12/13 12:23:02 QC value within limits for Pb 220.353 Recovery = 99.29%

Sb 206.833	1,609.8	0.4883	0.00685	mg/L	0.4883	1.40 %

2010/12/13 12:23:02 QC value within limits for Sb 206.833 Recovery = 97.65%

Se 196.026	968.0	0.4874	0.00458	mg/L	0.4874	0.94 %

2010/12/13 12:23:02 QC value within limits for Se 196.026 Recovery = 97.48%

Sn 189.933	4,189.7	0.4945	0.00570	mg/L	0.4945	1.15 %

2010/12/13 12:23:02 QC value within limits for Sn 189.933 Recovery = 98.91%

Sr 421.539R	374,743.0	0.4836	0.00235	mg/L	0.4836	0.49 %

2010/12/13 12:23:02 QC value within limits for Sr 421.539R Recovery = 96.71%

Ti 337.280	132,715.4	0.2459	0.00128	mg/L	0.2459	0.52 %

2010/12/13 12:23:02 QC value within limits for Ti 337.280 Recovery = 98.37%

Tl 190.800	1,651.2	0.4991	0.00464	mg/L	0.4991	0.93 %

2010/12/13 12:23:02 QC value within limits for Tl 190.800 Recovery = 99.81%

V 292.402	102,150.0	0.4991	0.00254	mg/L	0.4991	0.51 %

2010/12/13 12:23:02 QC value within limits for V 292.402 Recovery = 99.82%

Zn 206.191	21,898.7	0.4899	0.00183	mg/L	0.4899	0.37 %

2010/12/13 12:23:02 QC value within limits for Zn 206.191 Recovery = 97.99%

Cd 228.802	2,331.7	0.0493	0.00054	mg/L	0.0493	1.10 %

2010/12/13 12:23:02 QC value within limits for Cd 228.802 Recovery = 98.52%

Mean Data

ID: BLK **Seq. No.:** 22 **A/S Pos:** 1

Sample Qty: g **Prep. Vol.:** **Dilution:** **:** **Date:** 2010/12/13 10:29:58

Analyte	Corr. Intensity	Conc (Calib)	Std. Dev.	Calib Units	Conc (Sample)	Std. Dev.	Sample Units	RSD

Y 371.029R	186,588.2	98.92	0.593	%		0.60 %
Y 324.227A	1,150,743.1	98.68	1.416	%		1.44 %
Ag 328.068	0.9	0.0000	0.00035	mg/L	0.0000	6,512.93 %
2010/12/13 12:23:03	QC value within limits for Ag 328.068 Recovery = Not calculated					
Al 308.215	-2.7	-0.003	0.0111	mg/L	-0.003	363.37 %
2010/12/13 12:23:03	QC value within limits for Al 308.215 Recovery = Not calculated					
As 188.979	-0.7	-0.0004	0.00216	mg/L	-0.0004	590.95 %
2010/12/13 12:23:03	QC value within limits for As 188.979 Recovery = Not calculated					
Ba 233.527	20.1	0.0002	0.00008	mg/L	0.0002	47.19 %
2010/12/13 12:23:03	QC value within limits for Ba 233.527 Recovery = Not calculated					
Be 313.107	80.8	0.0000	0.00005	mg/L	0.0000	204.02 %
2010/12/13 12:23:03	QC value within limits for Be 313.107 Recovery = Not calculated					
B 208.959	237.4	0.0244	0.00132	mg/L	0.0244	5.42 %
2010/12/13 12:23:03	QC value within limits for B 208.959 Recovery = Not calculated					
Ca 317.933	162.6	0.0100	0.00239	mg/L	0.0100	23.83 %
2010/12/13 12:23:03	QC value within limits for Ca 317.933 Recovery = Not calculated					
Cd 226.502	12.5	0.0001	0.00008	mg/L	0.0001	66.03 %
2010/12/13 12:23:03	QC value within limits for Cd 226.502 Recovery = Not calculated					
Co 228.616	3.3	0.0001	0.00029	mg/L	0.0001	288.68 %
2010/12/13 12:23:03	QC value within limits for Co 228.616 Recovery = Not calculated					
Cr 267.716	24.4	0.0003	0.00009	mg/L	0.0003	31.96 %
2010/12/13 12:23:03	QC value within limits for Cr 267.716 Recovery = Not calculated					
Cu 324.754	464.3	0.0016	0.00038	mg/L	0.0016	22.89 %
2010/12/13 12:23:03	QC value within limits for Cu 324.754 Recovery = Not calculated					
Fe 273.955	273.1	0.0126	0.00113	mg/L	0.0126	8.94 %
2010/12/13 12:23:03	QC value within limits for Fe 273.955 Recovery = Not calculated					
K 766.491R	80.0	0.035	0.0407	mg/L	0.035	114.97 %
2010/12/13 12:23:03	QC value within limits for K 766.491R Recovery = Not calculated					
Li 670.781R	86.6	0.001	0.0032	mg/L	0.001	299.71 %
2010/12/13 12:23:03	QC value within limits for Li 670.781R Recovery = Not calculated					
Mg 279.079R	18.0	0.015	0.0045	mg/L	0.015	30.63 %
2010/12/13 12:23:03	QC value within limits for Mg 279.079R Recovery = Not calculated					
Mn 257.610	140.8	0.0002	0.00003	mg/L	0.0002	13.05 %
2010/12/13 12:23:03	QC value within limits for Mn 257.610 Recovery = Not calculated					
Mo 202.030	40.7	0.0018	0.00016	mg/L	0.0018	8.69 %
2010/12/13 12:23:03	QC value within limits for Mo 202.030 Recovery = Not calculated					
Na 589.592R	523.0	0.049	0.0192	mg/L	0.049	39.06 %
2010/12/13 12:23:03	QC value within limits for Na 589.592R Recovery = Not calculated					
Ni 231.604	11.8	0.000	0.0001	mg/L	0.000	55.09 %
2010/12/13 12:23:03	QC value within limits for Ni 231.604 Recovery = Not calculated					
Pb 220.353	5.0	0.0006	0.00106	mg/L	0.0006	184.27 %
2010/12/13 12:23:03	QC value within limits for Pb 220.353 Recovery = Not calculated					
Sb 206.833	12.4	0.0038	0.00059	mg/L	0.0038	15.54 %
2010/12/13 12:23:03	QC value within limits for Sb 206.833 Recovery = Not calculated					
Se 196.026	3.0	0.0015	0.00236	mg/L	0.0015	154.12 %
2010/12/13 12:23:03	QC value within limits for Se 196.026 Recovery = Not calculated					
Sn 189.933	5.7	0.0007	0.00075	mg/L	0.0007	111.53 %
2010/12/13 12:23:03	QC value within limits for Sn 189.933 Recovery = Not calculated					
Sr 421.539R	344.9	0.0004	0.00027	mg/L	0.0004	61.54 %
2010/12/13 12:23:03	QC value within limits for Sr 421.539R Recovery = Not calculated					
Ti 337.280	106.9	0.0002	0.00012	mg/L	0.0002	61.27 %
2010/12/13 12:23:03	QC value within limits for Ti 337.280 Recovery = Not calculated					
Tl 190.800	5.3	0.0016	0.00210	mg/L	0.0016	131.54 %
2010/12/13 12:23:03	QC value within limits for Tl 190.800 Recovery = Not calculated					
V 292.402	-83.7	-0.0004	0.00064	mg/L	-0.0004	167.82 %
2010/12/13 12:23:03	QC value within limits for V 292.402 Recovery = Not calculated					
Zn 206.191	16.4	0.0004	0.00006	mg/L	0.0004	16.42 %
2010/12/13 12:23:03	QC value within limits for Zn 206.191 Recovery = Not calculated					
Cd 228.802	11.9	0.0003	0.00022	mg/L	0.0003	89.12 %
2010/12/13 12:23:03	QC value within limits for Cd 228.802 Recovery = Not calculated					

PREPARATION BENCH SHEET

Printed: 12/9/2010 1:00:19PM

0L09020

ENCO Jacksonville

Prepared using: EPA 3005A

Spiking Solution
B0E0222 ICP Spike A
B0E0223 ICP Spike B

Matrix: Water

12/9/10 AW

Lab Number	CNT	LOC	Sample ID [Source] or Sample ID [Client]	Due Date	Method	Analytes	Initial (mL)	Final (mL)	Spike ID	ul Spike	Extraction Comments
0L09020-BLK1			QC		QC		50	50			
0L09020-BS1			QC		QC		50	50	B0E0222 B0E0223	500 500	
0L09020-MS1			Matrix Spike [B005765-01]		QC		50	50	B0E0222 B0E0223	500 500	
0L09020-MSD1			Matrix Spike Dup [B005765-01]		QC		50	50	B0E0222 B0E0223	500 500	
B005765-01	A	S4	MPT-AOC-E-MW08S-20101206 [Tetra Tech NUS (BR006) - Navsta Mayport CTO JM32 AOCC]	12/17/10	EPA 6010C	As	50	50			

12/9/10 AW

Start Date/Time 12/9/10 17:00

StopDate/Time 12/9/10 20:00

Temperature 96.6°

Standard ID#	Description	LotNum
B0K0023	Conc. Hydrochloric Acid (Trace Me	J34056
B0L0059	Conc. Nitric Acid (Trace Metal Gra	1110090

NA
Balance ID

JMDIGEST
Hot Block ID

1008257
Digestion Tube Lot #

Samples Prepared By — Date/Time 12/9/10

Samples Prepared By — Date/Time

Samples Prepared By — Date/Time

Note - /F at the end of the analyte means that this is a Filtered analysis.